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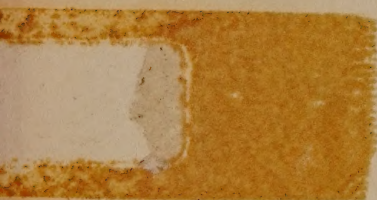
REPORT

of the

DEPARTMENT OF

DEFENCE PRODUCTION

January 1 to December 31, 1960



OTTAWA

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TENTH REPORT

of the

DEPARTMENT

of

DEFENCE

PRODUCTION

1960

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Honourable RAYMOND O'HURLEY, *Minister*

D. A. GOLDEN, *Deputy Minister*

ROGER DUHAMEL, F.R.S.C.
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*To His Excellency Major General Georges P. Vanier, DSO, MC, CD,
Governor-General and Commander-in-Chief of Canada.*

MARCH 3, 1961.

MAY IT PLEASE YOUR EXCELLENCY:

I have the honour to submit to Your Excellency the Report of the Department of Defence Production for the calendar year 1960.

A summary of the operations and services rendered by this Department, under their respective headings, is laid before Your Excellency.

Respectfully submitted,

Raymond O'Rourke.

Minister of Defence Production.



MARCH 2, 1961.

The Honourable Raymond O'Hurley, P.C., M.P.,
Minister of Defence Production,
Ottawa, Ontario.

DEAR SIR:

I have the honour to submit the Report of the Department of Defence Production, which covers the operations and services rendered during the calendar year 1960.

Yours faithfully,

A handwritten signature in dark ink, appearing to read "D. J. [unclear]", written in a cursive style.

Deputy Minister.

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Introduction

UNDER the provisions of the Defence Production Act (R.S.C. 1952, Chapter 62, as amended), the Department of Defence Production has exclusive authority to procure the goods and services required by the Department of National Defence and the responsibility to ensure that the necessary production capacity and materials are available to support the defence production programme.

The Department also serves as procurement agent for the Canadian Commercial Corporation, a Crown company primarily responsible for the purchase in Canada of defence goods required by other governments and of supplies needed to meet Canadian commitments under the Colombo Plan and other international agreements.

Military construction is the prime responsibility of Defence Construction (1951) Limited, a Crown company reporting to Parliament through the Minister of Defence Production.

In 1960, an Emergency Supply Planning Branch was established within the Department to carry out the task of planning and making other necessary arrangements to provide for the immediate establishment of a War Supplies Agency should there be a nuclear attack.

The Ammunition and Gun Branches were combined into an Armament Branch, in line with the Department's continued interest in adapting its organization to changes in the pattern of defence equipment requirements.

Production and Procurement

PROCUREMENT and construction activity for the Canadian defence programme, as measured in terms of payments to contractors, declined in 1960 for the seventh consecutive year. At \$620.6 million, expenditures were 7.8 per cent lower than in 1959. On the other hand, commitments to business and industry, as reflected by the net value of contracts issued, were much greater in 1960. The value of new contracts and increasing amendments to existing contracts, less decreases and cancellations, amounted to \$805.9 million, 36 per cent more than in the preceding year. For the first year since 1954 the volume of new commitments exceeded the value of expenditures, thus increasing the amount of outstanding defence business during the year by \$185 million.

Canadian defence expenditures made to prime contractors located outside the country represented 9.5 per cent of total cash payments during the year. This was an increase over the 6.7 per cent paid abroad in 1959. As usual, the greatest value of payments abroad, \$58.7 million, went to the United States. However, United States Government spending on prime contracts placed in Canada, which totalled \$85.5 million in 1960, was much higher than Canadian prime defence spending in the United States. As in past Reports of the Department, these figures reflect only expenditures to prime contractors of this Department and Defence Construction (1951) Limited, and do not represent the total flow of Canadian defence expenditures into the United States nor of United States defence expenditures into Canada.

Details of the production and procurement programmes, an analysis of the contracts issued and expenditures made, and a report on the production sharing programme are given in the following pages. An account of the defence construction programme is contained in the Annual Report of Defence Construction (1951) Limited.

Aircraft

Aircraft and aircraft equipment requirements of the Department of National Defence amounted to \$252 million in 1960, which was approximately the same level as 1959. About 30% of this was for repair and overhaul and 70% was for development, procurement and production of aircraft and related systems.

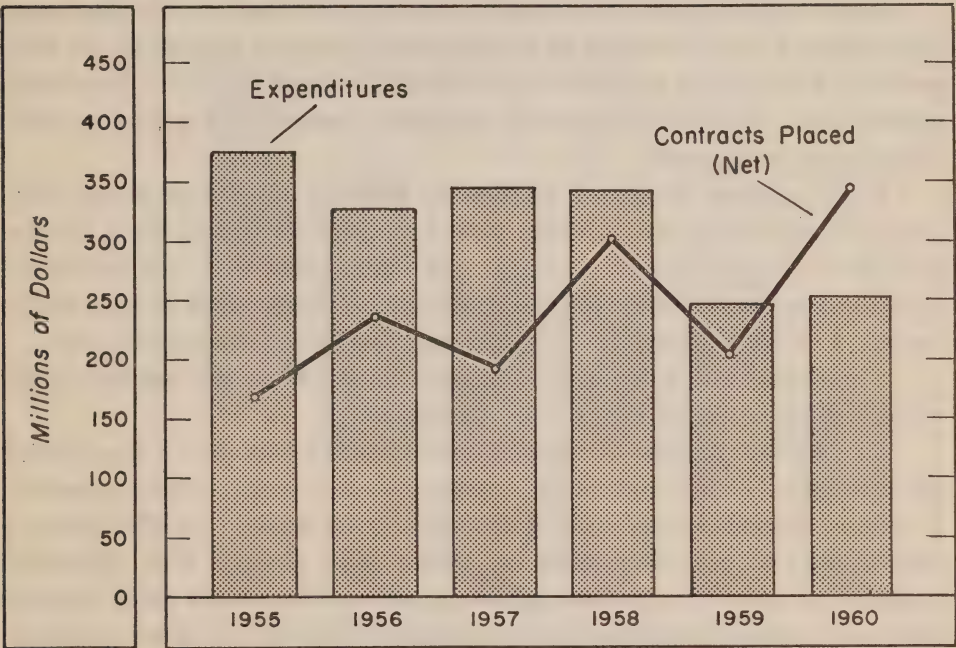
Deliveries of the CP-107 Argus maritime reconnaissance aircraft and the CS2F Tracker carrier-borne aircraft were completed in 1960. Deliveries of the CC-109 medium range transport were virtually completed. Four Caribou aircraft,

purchased for use and support of the United Nations activities, were ordered and delivered in the latter part of the year.

The CC-106 long-range transport production programme continued during the year, with the first aircraft being delivered to the Royal Canadian Air Force in November. Deliveries of these aircraft were set back a few months owing to difficulties encountered with engine deliveries. These difficulties were cleared up by the end of the year.

The first of a small quantity of Albatross search and rescue aircraft ordered from the United States was delivered. In addition, four C-130B Hercules medium range heavy bulk carrier aircraft were also purchased in the United States. These aircraft were not manufactured in Canada because the small quantity did not permit economic production in this country.

Contracts and Expenditures for the Defence Aircraft Programme



During the year, the CF-104 production programme became the major programme within the Canadian aircraft industry. The production of the airframe, engines and equipment items for the programme proceeded on schedule and the first aircraft is expected to be off the assembly line in the Spring of 1961. The similarity between the Canadian version of the F-104 aircraft and that adopted by several NATO countries has lent itself to close co-operation between the countries concerned. An officer of the Department was transferred to Europe as a representative to the European Organization for Direction and Control of the F-104G programme.

Production of the Otter aircraft for the RCAF continued through 1960.

In the field of engine production, the R-1820-82 piston engine was completed during the year, as was the Hamilton Standard propeller. Both these items of equipment have been installed on the CS2F Tracker aircraft. Production of the J-79-7 turbojet engine for use in the CF-104 was on schedule and the first engine successfully completed its test run in December.

There was considerable activity during the year in aircraft equipment items. Production of the position and homing indicator was entered into for the CF-104 programme and has been selected by the German Air Force, the Royal Netherlands Air Force, the Belgian Air Force and the Italian Air Force for use in their F-104 aircraft. The LN-3 inertial navigation system, the MH-97 automatic flight control system and other items of navigation equipment for the CF-104 were also put into production. Further quantities of the air navigation and tactical control (ANTAC) system were ordered for the Neptune anti-submarine aircraft.

Repair and overhaul of airframes, engines and other aircraft equipment proceeded at a lower level than in previous years, primarily because of the withdrawal of a number of types of aircraft that had become obsolete. Considerable progress again was made in improving contracting methods with respect to repair and overhaul programmes.

Procurement of the Mk. 1 Caribou on behalf of the United States Army was continued during the year and firm contracts were placed for a number of aircraft. The performance of this aircraft during flight trials and subsequent demonstrations has attracted world-wide interest. A development programme on the Mk. 2 Caribou aircraft was started in co-operation with the manufacturer.

The Department gave financial support to the PT-6 gas turbine engine, which is being developed by a Canadian company.

The Aircraft Branch was active in the Canada-United States development and production sharing programme. Arrangements were made, wherever possible, to increase the number and type of opportunities for firms in the Canadian aircraft industry to bid competitively on United States defence work. Significant progress was achieved in both the prime contract and subcontract areas. Intensive efforts were made to locate and identify in the Canadian aircraft industry projects with potential use for the United States military services. In a number of such cases, government financial assistance was provided to maintain scientific and technical ability at a level capable of participating in future joint production programmes with the United States.

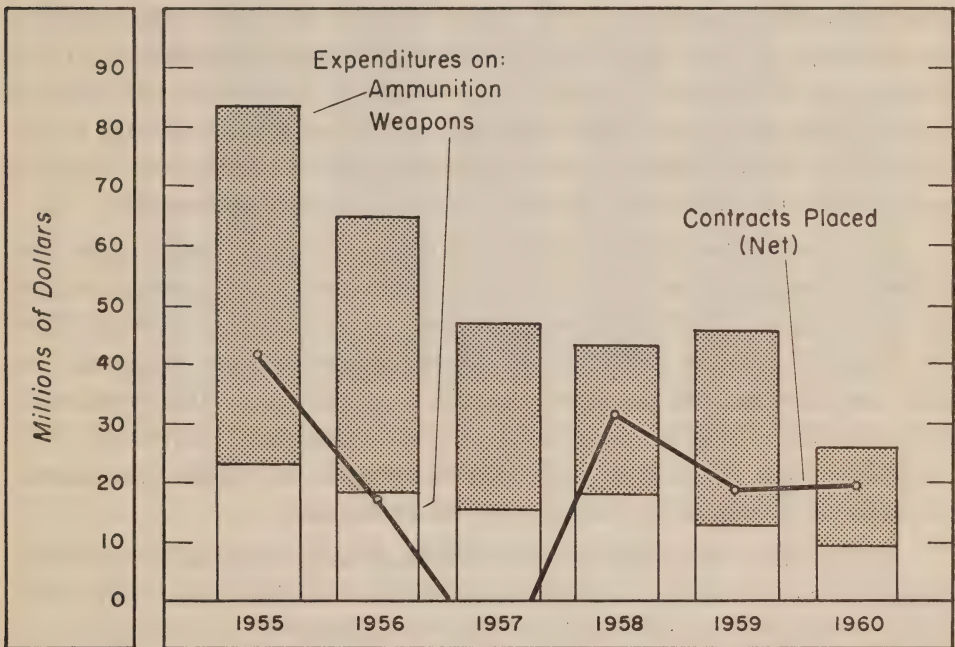
Armament

The procurement of ammunition and of weapons had, until October 1, 1960, been performed by the Ammunition and Gun Branches of the Department. On that date these areas of procurement were combined and became the responsibility of a new Armament Branch.

Production of anti-submarine mortars, 2.75" rockets and 3"/50 calibre illuminating cartridges was completed during the year. Among the major items under production were anti-submarine torpedoes for export to the Royal Navy; 7.62mm rifles and 9mm submachine guns and ammunition; 20 pdr., 105mm howitzer, and 81mm mortar smoke ammunition for the Army; 3"/50 calibre, 3"/70 calibre and 4" naval gun ammunition; practice depth charges and bombs; high altitude rockets; and many types of pyrotechnic devices for the three Armed Services.

Major development projects included navigational and arming aids, underwater explosive signals, new type anti-submarine projectiles, plastic components, a new type propellant and pyrotechnic devices.

Contracts and Expenditures for the Defence Armament Programme



Procurement of armament items from abroad increased as a result of smaller requirements for the Armed Forces. Items were only purchased outside Canada, however, where production in this country would have involved the establishment of special facilities at an unduly high cost. The principal purchases in the United States were for 762mm Honest John rocket equipment and JATO (jet assisted take off) rockets. Purchases in the United Kingdom included 3"/70 calibre guns and mountings, 105mm tank ammunition, star shells and flares, safety aircraft ejection equipment, and special armour plate.

Efforts to promote foreign interest in Canadian armament production and development increased substantially during the year, with a corresponding increase

in opportunities for Canadian contractors to bid on the military requirements of other countries. Arrangements were made for co-operation by the United States in several Canadian development programmes. Through conferences of the North Atlantic Treaty Organization, certain Canadian-designed products were brought to the attention of member countries.

Various specialized production facilities were maintained in a state of partial readiness for future use. A contract was issued for joint Canadian-United States financing of the maintenance of the nitroguanidine production facility located in this country.

Electronics

Canadian defence requirements for electronics and communication equipment involved the expenditure of \$88 million in 1960, down from \$100 million in the preceding year. New commitments, however, increased significantly to \$133.6 million from \$82.3 million in 1959. In addition to expenditures on Canadian defence electronics requirements, about \$38 million was spent in Canada by the United States for electronics supplies during the year, and a beginning was made on production for the United Kingdom and the Federal Republic of Germany.

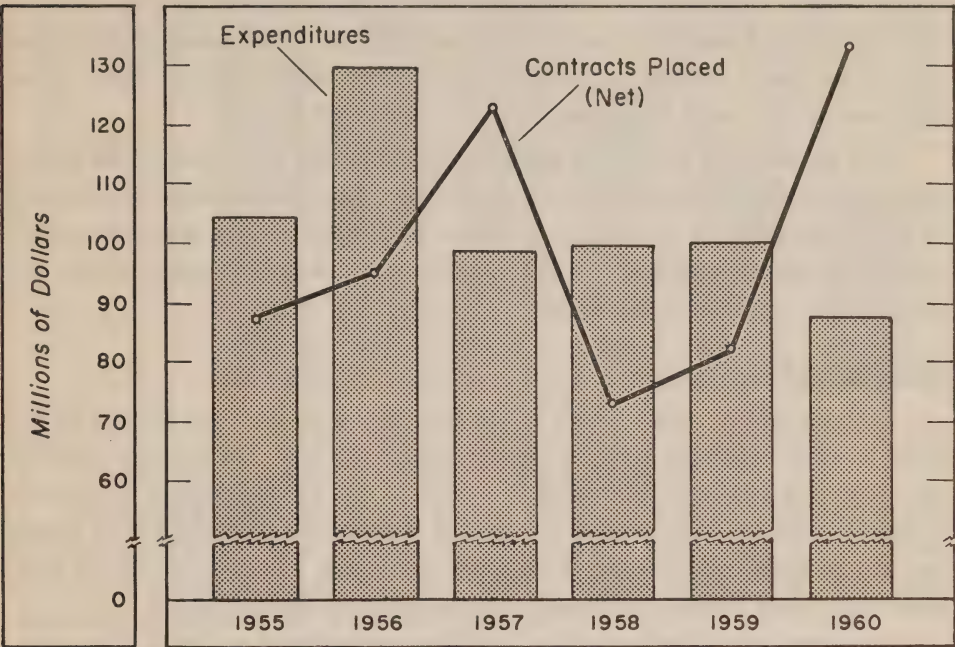
In the field of radar, the production of search and height finding radars and of fiberglass radomes neared completion. These items were being produced to meet the requirements of both the Royal Canadian Air Force and the United States Air Force. Production continued on counter countermeasure equipment for both these Services, and on selective identification equipment. The development and production of data processing equipment was a significant contribution to the air defence radar programme. Production commenced on battlefield surveillance radars for the Armies of both Canada and the United States.

Production on two major search and attack sonar programmes continued during the year, as well as on the Canadian designed variable depth sonar. Additional production on the variable depth sonar was initiated to meet requirements of the Royal Navy. A miscellany of naval navigation equipment, such as gyro compasses, logging equipment and plotting tables, was produced. Sonobuoy development and production was continued for the Royal Canadian Air Force and the United States Navy.

Production and installation continued on air defence communication (ADCOM) for the Royal Canadian Air Force. Planning for semi-automatic ground environment (SAGE) communications in Canada continued, and initial contracts were placed for the lease of long line and on-base systems. Rearward communications for the Ballistic Missile Early Warning System (BMEWS) were completed during the year. Production in the United Kingdom for Canadian Army

vehicle communications continued, and contracting for three major Army communication projects was begun. Production also continued on the communication requirements in Canada of the United States Army. Procurement was initiated for the radio transmitting and receiving equipment for new naval ships.

Contracts and Expenditures for the Defence Electronics and Communication Equipment Programme



A major programme in the area of aircraft electronics was the production of the NASARR system of fire control and terrain avoidance for the CF-104 aircraft. Communication, navigation and identification equipment for several major new programmes and retrofit programmes continued in production. Considerable development work took place on airborne anti-submarine electronics, including a sonobuoy receiver retrofit programme.

Activity in the training aids (simulator) field continued at a high level. Development of an Argus tactical crew procedure trainer neared completion, and programmes were completed in connection with the Argus operational flight trainer and general purpose flight and instrument trainers. A major programme was undertaken for the supply of CF-104 operational flight and tactics trainers, including requirements for the Federal Republic of Germany, the Netherlands and Belgium. A requirement for a tactical trainer for the Royal Canadian Navy was met, and work began on a models control trainer for that Service. The Department continued its administration of an automatic letter sorter programme for the Post Office Department.

Considerable activity was devoted to the operation and maintenance of the mid-Canada early warning line.

Installation of new radar, data processing, communication, navigation and identification equipment, largely for the United States military services, required substantial effort during the year.

The procurement of component spares for both the Canadian and United States Services continued at a significant level. The Department's programme to establish qualified sources of supply for component parts and materials progressed satisfactorily, with 20 contracts having been placed with Canadian firms. Seven additional projects were under negotiation at the end of the year.

The encouraging increase in electronics procurement in Canada by the United States and other countries of the North Atlantic Treaty Organization was assisted by the maintenance of a small group in the Electronics Branch directed towards identifying and following-up defence requirements in certain areas where this country has a production capability.

Shipbuilding

Construction of all six vessels of the third group of destroyer escorts, known as the repeat-Restigouche class, continued through the year. The last two vessels of this group will represent an improved version of the repeat-Restigouche class. It is planned that this improvement will include a helicopter flight deck with hangar and will be fitted with variable depth sonar equipment. The majority of the components for these vessels were purchased and manufactured in Canada.

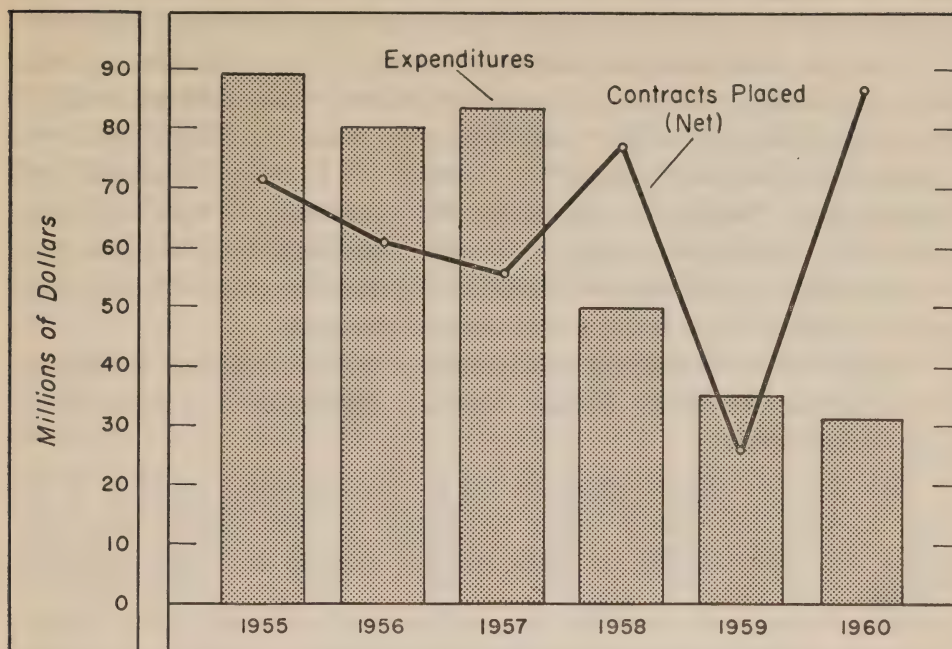
The central procurement agency located at the lead yard maintained its operations under the supervision of this Department. This procurement agency is responsible for the bulk purchase, distribution and accounting associated with the supply of equipment and material required to be worked into the vessels of the repeat-Restigouche class, and which had been the responsibility of the lead yard during previous destroyer escort programmes.

A contract was placed on a normal commercial basis for the construction of a naval tanker-supply vessel. This is the first time that a contract of this nature has been negotiated for a large and complex Canadian naval vessel. Materials, components and equipment for this vessel were procured from Canadian sources wherever possible, subject to availability and reasonable competition.

A contract was also issued, as a result of competitive tenders, for the construction of a hydrographic and oceanographic survey vessel for the Department of Mines and Technical Surveys.

Contracts for a standard diving tender and a tank cleaning barge for the Royal Canadian Navy were accelerated as part of the government's winter works programme.

Contracts and Expenditures for the Defence Ships Programme



Programmes of small boats were completed during the year.

Seventy-five contracts valued at \$8.6 million were placed during the year for the repair and refit of naval ships. Six contracts were issued for the installation and repair of degaussing equipment. These contracts have been widely distributed throughout the shipbuilding industry.

Modernization programmes were authorized for the St. Laurent class destroyer escorts as well as HMCS CRUSADER. The naval central drawing office, which is under contract from this Department, is preparing drawings for these programmes as well as drawings required for the construction of two deperming dumb barges.

Negotiations have been proceeding for the establishment in Canada of production facilities for the manufacture of noise reducing five-bladed propellers for naval ships.

Studies were conducted in conjunction with two other government departments and the steel industry on the requirements for defence and commercial purposes of steel manufactured by the vacuum degassing process. This process produces steel of a very pure quality with a minimum of brittleness.

Machine Tools and Gauges

Machine tools valued at \$706,000 were procured in 1960, down noticeably from the \$1 million worth purchased in the preceding year. These machine tools were primarily for the Department of National Defence and the Colombo Plan.

Except for a few major specialized machines required in the Naval dockyards, most purchases were for standard types of maintenance and repair shop equipment.

The care, maintenance and custody of stand-by Crown owned defence assets, including the allocation and reallocation of machine tools, involved contracts totalling \$562,000. The 155mm shell forging and machining facility, which was in storage in a contractor's plant, was moved to the Department's machine and tool warehouse. The 20 pdr. shell facility was combined with other equipment required for forging and machining 20 pdr. and 90mm shells and placed in long-term storage. Following the completion of production on M500 series fuses and 2.75" rockets, these facilities were removed and stored.

Gauges valued at \$61,000 were purchased for the Inspection Services of the Department of National Defence. This was slightly less than the value of gauges bought in 1959.

Machine Tool Branch inspection and technical personnel continued to be called upon by other branches of the Department for plant surveys, time study reports and other technical assistance involving machine tools and production facilities.

General Purchasing

The General Purchasing Branch, through its headquarters organization and fourteen district offices located across Canada, procured the requirements of the Department of National Defence and other requisitioning agencies involving goods and services not normally requiring special production facilities. These purchasing activities resulted in the issuance of 145,800 contractual documents having a total value of \$179.3 million in 1960.

Purchases by the headquarters organization included bulk requirements of such items as petroleum products and hard carbon fuels, clothing and footwear, medical and dental stores, electrical power generating, control and distribution equipment, beverages and packaged foods, building supplies and hardware, furniture and furnishings, barrack equipment and naval stores, as well as aircraft ground handling equipment and all types of mechanical transport, construction and road maintenance equipment. Services arranged by headquarters included certain research and development projects, engineering, food catering, and aerial surveys. Research projects included the investigation of indigenous tanning materials for the production of leather, ways to combat ice on fixed structures and airport runways, and the bearing strength of ice sheets. Canadian industry, together with certain Crown agencies, participated with encouraging results in the development of essential equipment in the nuclear, bacteriological and chemical fields.

During the year the Branch arranged contracts for the Canadian fabrication and testing of freeze dry equipment for dehydrating meats and vegetables. Although other countries have used the same concept for the preservation of food, the Canadian unit has been expressly designed to process items, common to our diet, at a higher rate than has been achieved elsewhere. A master prototype of the "Bobcat", in the form of an armoured personnel carrier, was delivered toward the end of the year. Following evaluation trials, it was determined by the Department of National Defence that a product improvement and pilot production programme would be necessary before the vehicle could be manufactured in quantity.

Contracts awarded during the year for aerial surveys utilized the full facilities of all Canadian firms engaged in this work. The requirements ranged from topography studies of the Northwest Territories to aerial mapping of densely populated areas for use by civil defence co-ordinating groups. A substantial volume of aerial photography equipment and supplies was procured on behalf of the Royal Canadian Air Force in support of their aerial survey programme. Purchases by the Branch in connection with the CF-104 aircraft programme consisted principally of ground starting and electrical power sets, generator frequency converters, personnel parachutes, pressurized clothing to overcome the force of gravity, helmets, visors and barometric parachute releases. Repair and overhaul contracting for cameras, fire fighting equipment, aircraft ground handling equipment and parachutes continued at a high level.

Initial steps were taken to establish a Canadian qualified products list for paints and related commodities. Preliminary arrangements were also made to introduce a similar qualified listing for industrial chemicals, cleaning materials and paper products. Interested suppliers can apply for approval of a specific product under this arrangement which, if granted, indicates compliance with a government specification.

The Branch continued to purchase a wide range of emergency health and welfare and national survival requirements for the Army. These included pack-boards, hoists, tackle blocks, pumps, pharmaceuticals, drugs, various types of medical equipment, x-ray machines, dental stores, blood and intravenous solutions.

Through its fourteen district purchasing offices the Branch continued to contract for services from local contractors and purchase fresh food and supplies needed for immediate use by regional military units and establishments. The activities of these offices accounted for 134,500 of the contractual documents issued by the Branch and involved commitments valued at \$59.3 million. Several offices were called upon to procure urgent and unusual requirements for the

movement of the Canadian task force assigned to the United Nations in the Congo. All offices actively participated in the procurement of materials required for the winter works programme. The continued implementation of better buying and office practices improved the operating efficiency of these offices.

District purchasing agents attended sessions with the Emergency Measures Organization to study the role envisaged for the district offices in the event of a national emergency.

Contracts and Expenditures

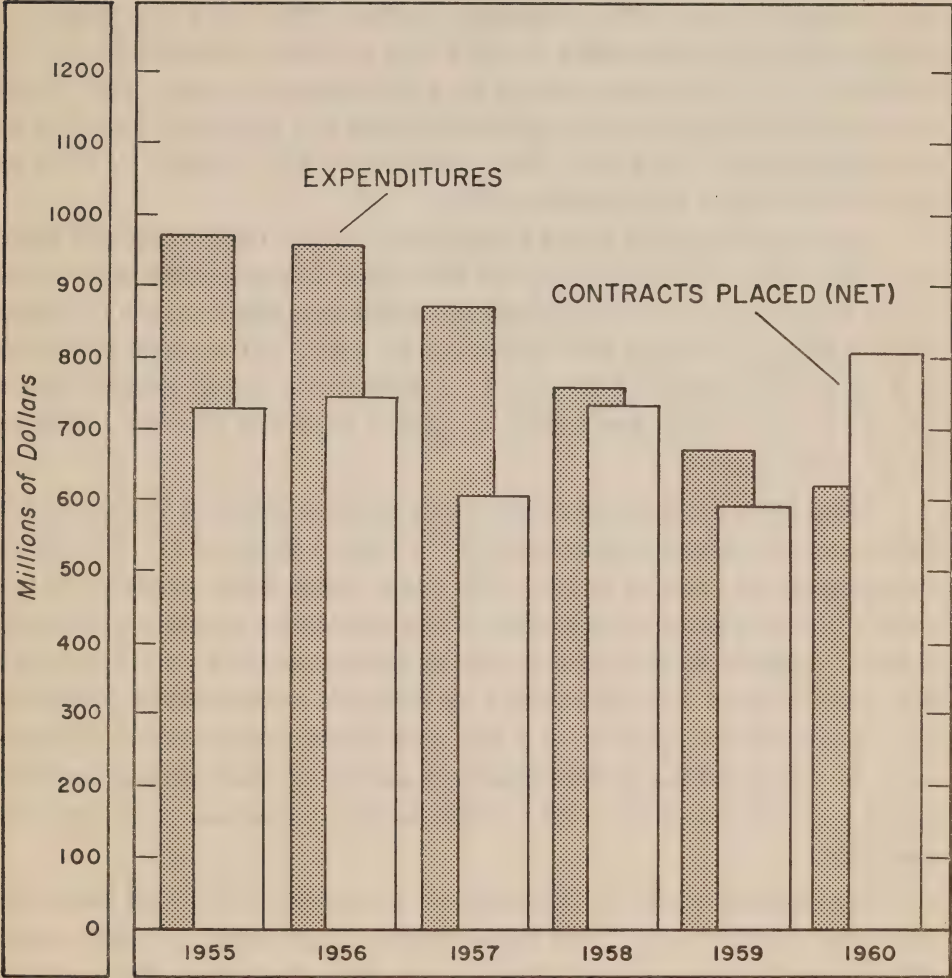
Defence procurement and construction contracts placed for the Department of National Defence amounted to a net value of \$805.9 million in 1960. This was a 36 per cent increase over the value for 1959. (The net value of contracts placed takes account of the value of amendments which increased or decreased existing contracts as well as the value of new contracts issued.) The significant increase in the net value of contracts issued resulted primarily from rises of \$141.3 million in the aircraft programme, \$60.3 million in the ships programme and \$51.3 million in the electronics and communication equipment programme. The \$805.9 million net value of contracts placed in 1960 was made up of \$715.4 million in new contracts, \$175.3 million in amendments that increased existing commitments, less \$84.8 million in amendments that decreased existing contracts.

Contracts and amendments issued for the aircraft programme had a net value of \$343.9 million in 1960, more than two-thirds greater than in 1959. This programme accounted for 42.7 per cent of the total net value of contracts placed in 1960, compared with 34.3 per cent in the preceding year. The major new contract commitments were for the CF-104 aircraft, its J-79-7 engines and CF-104D trainers. Contracts were issued for the purchase of four C-130B Hercules transport aircraft and related equipment; and increased commitments were made in connection with the CC-106 long range carrier. Contracts having a total net value of \$133.6 million were placed for the electronics and communication equipment programme in 1960, which represented a 62.3 per cent increase over 1959. Major items of this programme included the LN-2 navigation system, air data computers, and other electronic equipment for the CF-104 aircraft. The larger commitments involved in the \$86.2 million worth of contracts placed in the ships programme were for the repeat-Restigouche class destroyer escorts. A naval tanker-supply vessel was also contracted for during the year. Defence construction contracts, totalling \$51.6 million in 1960, were 23.2 per cent down from 1959.

Expenditures on Canadian defence procurement and construction amounted to \$620.6 million in 1960, 7.8 per cent less than in 1959. All the major equipment programmes except aircraft (which increased by \$6 million) registered

declines. Ammunition and explosives expenditures decreased \$16.3 million and electronics and communication equipment fell off \$12.1 million. The \$16.5 million decline on clothing and equipage was mainly due to the unusually large expenditure in 1959 when the Department of National Defence took over the Defence Production stockpile of cloth. Just over 40 per cent of all spending on defence procurement and construction in 1960 was accounted for by the air-

Contracts Placed on Behalf of the Department of National Defence and Expenditures Against Such Contracts



craft programme, compared to 36.5 per cent in 1959. The next major spending programmes were electronics and communication equipment with 14.2 per cent, construction with 10.3 per cent, fuels and lubricants with 6.3 per cent, and ships with 5.0 per cent.

In 1960, 10.6 per cent of the total net value of prime contracts issued was placed abroad, as compared to 8.0 per cent in 1959. The United States received 8.7 per cent of the total, the United Kingdom received 1.5 per cent and other countries 0.4 per cent. The proportion of expenditures paid directly to defence contractors located outside Canada was 11.3 per cent of total payments on defence procurement and construction, 9.5 per cent going to the United States, 1.4 per cent to the United Kingdom and 0.5 per cent to other countries. The corresponding proportion of payments made abroad in 1959 was 6.7 per cent.

The United States received Canadian prime defence contracts valued at \$70.4 million in 1960. This substantial increase over the \$30.2 million in contracts placed in that country in 1959 was primarily accounted for by the purchase of CF-104D trainer aircraft, the LN-2 navigation system, and a small quantity of C-130B aircraft with associated spares and equipment. Payments to prime contractors in the United States amounted to \$58.7 million in 1960, as against \$31.3 million in the previous year.

Contracts placed in the United Kingdom were valued at \$11.7 million in 1960, down from \$14.4 million in 1959. The major new defence commitments in the United Kingdom were for 105mm shells and modification kits to up-gun Centurion tanks. Additional contracts were placed for the repair and overhaul of aircraft used by the Air Division in Europe. Total payments to United Kingdom prime contractors amounted to \$8.6 million in 1960, a decline of 20.6 per cent from the preceding year.

United States Government defence prime contracts placed in Canada by this Department and Defence Construction (1951) Limited amounted to \$75.4 million, approximately the same as in 1959. The major United States purchases in this country were for Caribou aircraft, spares for aircraft engines, sonobuoys, petroleum products, re-supply support for early warning stations, rental of voice circuits and data facilities, depot level maintenance for electronic communication equipment, and maintenance and operation of a long lines communication system. Payments made by the United States Government on account of prime defence contracts placed in Canada amounted to \$85.5 million in 1960, an increase of 16.6 per cent over 1959.

The figures above for Canadian defence purchases in the United States and the United Kingdom, and United States Government purchases in Canada, refer only to prime defence contracts. They do not reflect the indirect effects of sub-contracting or the purchases of components, materials or services by the prime contractors.

In addition to the defence contracts described above, the Department placed orders valued at \$25.7 million in 1960 for other Canadian Government depart-

ments and agencies and for governments other than the United States. These purchases included items such as fertilizer and diesel locomotives for Canada's contribution to the Colombo Plan, flight simulators for the Federal Republic of Germany, variable depth sonar for the United Kingdom, a hydrographic and oceanographic survey vessel for the Department of Mines and Technical Surveys, and flour for the Department of External Affairs.

A statistical summary of defence contracts placed by the Department of Defence Production and Defence Construction (1951) Limited, and of expenditures against these contracts, is given in Appendix F of this Report.

Defence Production and Development Sharing

During 1960, the Department's activities in connection with the Canada-United States defence production and development sharing programme were substantially increased, and the results were encouraging. A definite climate favourable to the participation of Canadian industry in United States defence procurement was created, there was an expansion and consolidation of the gains made in 1959 in overcoming procedural difficulties, and the development aspect of the programme was increased. The value of United States prime contracts and subcontracts received by Canadian industry that were related to the production sharing programme amounted to \$112.7 million in 1960 as compared with \$96.3 million in the preceding year.

Several committees and co-ordinating organizations were concerned with the programme. The Canada-United States Ministerial Committee on Joint Defence reviewed periodically the political and economic aspects of joint defence problems, including production and development sharing. The Permanent Joint Board on Defence similarly followed and supported the programme. A Committee of senior officials of both governments met regularly to provide direction to and monitor the progress of the development and production sharing programme. This Committee included representatives from the Canadian Departments of Defence Production, National Defence, External Affairs and Finance, as well as from the United States Army, Navy, Air Force and the Office of the Secretary of Defense. An Inter-departmental Committee, made up of representatives of the Departments of Defence Production and National Defence, the Defence Research Board and Treasury Board staff, co-ordinated the development sharing projects supported by this Department's development fund.

The Department's Production Sharing Co-ordinating Office maintained close liaison with other Canadian Government departments and with a similar co-ordinating group in the United States Government. The number of officers directly associated with production and development sharing in Ottawa was increased, thus permitting the establishment of production sharing sections in four of the production branches. This resulted in improved co-ordination and liaison with industry. The Department's Washington Office was also active in the programme, and five liaison officers were stationed at key government procurement offices and large contracting centers in the United States.

During 1960, negotiations continued toward liberalization and expansion of previous Canada-United States arrangements designed to encourage joint production sharing. Thus, regulatory and procedural restrictions, such as the Buy American Act and duty regulations, which prevented Canadian firms from obtaining equal access to United States defence markets, were virtually eliminated with

regard to Canadian defence supplies. Other problems, such as security, were not completely eliminated but their effects on Canadian suppliers were mitigated.

The lessening of these problems did much to establish the right climate for production sharing. Of equal importance, however, was the intensive stimulation and educational campaign carried out in both countries. The United States Department of Defense and the American Services distributed directives and regulations designed to encourage purchasing from Canada both on the prime contract and subcontract level. Representatives of many United States companies visited Canadian firms to make facility surveys and determine sources for subcontracting requirements.

The Department of Defence Production continued its extensive campaign to complete the listing of Canadian companies as sources for United States Government requirements. A continuous review and revision of these listings was carried out to ensure that the information on Canadian capabilities was current and accurate. Departmental officers, through visits to United States procurement centers and through United States and Canadian industry, trade associations, trade fairs and symposia, were able to obtain information and provide useful guidance to participants in the programme.

The Department provided information on the programme to Canadian and United States prime contractors and subcontractors and to the United States Services. Of particular importance was the revised booklet on "Canada-United States Defence Production Sharing", which is now widely used in both countries. Other booklets distributed to Canadian industry outlined procedures used by the United States Services in regard to research and development purchasing, as well as instructions for obtaining technical information and planning documents. In addition, United States buyers were provided with brochures listing Canadian defence companies, and the defence commodities and research and development areas in which Canadian companies have special competence.

The success of these efforts is shown by the significant increase in bid solicitations and submissions in both the prime contract and subcontract areas during 1960. In the subcontracting area, which was virtually non-existent prior to the establishment of the production sharing programme in the fall of 1958, invitations to bid rose from some 1,900 in 1959 to more than 2,700 in 1960, and replies to these bids rose from approximately 1,400 to more than 2,100. United States subcontracts received by Canadian firms numbered 882 with a value of \$51.7 million, as compared with 365 valued at \$45.3 million in 1959.

The Department provided further financial assistance to Canadian firms, primarily in the electronics and aircraft fields, by absorbing part of the Canadian contractors' preproduction and tooling costs, thus putting them in a more equitable

competitive position with United States contractors. Normally, American contractors have an advantage because most of their preproduction and tooling costs have been written off under previous contracts. Payments amounting to \$630,000 were made to Canadian firms in 1960 for this type of assistance, and new commitments made totalled \$307,000.

Increasing emphasis was placed on the research and development aspect of production sharing in 1960. This involved the continuation of financial support for a long-term defence development programme aimed at maintaining and improving Canadian industry's scientific and technical competence so that it will be able to participate fully in future United States defence production programmes. This support took several complementary approaches to defence development in the United States. The Department ratified procedural arrangements with the United States Army and continued negotiations with the United States Air Force with the result that certain United States development requirements will be undertaken and financed in Canada. In support of uniquely Canadian projects whose successful development is expected to be of interest to the United States Services, the Department provided assistance to competent Canadian companies. Further, to improve Canadian industry's position to compete for United States financed development requirements, the Department shared the cost of selected projects with the United States Government and the Canadian companies concerned.

Contracts valued at \$2,425,000 were issued in 1960 for this research and development assistance, with payments amounting to \$2,033,000. In addition to these contracts, there were a number of projects under active consideration, including several unique Canadian concepts and formal United States requirements approved in principle for support, totalling \$12 million. Canadian companies received almost \$3 million in United States defence research and development business during the year. The development projects were in such areas as navigational aids, communication equipment, anti-submarine warfare equipment, gas turbine engines, and vertical and short take off and landing (VTOL and STOL) aircraft.

The achievements of the production and development sharing programme during 1960 resulted from close co-operation between government and industry in Canada and the United States. Both governments have recognized the need to continue to stimulate and educate industry and government personnel if the full benefits of the programme are to be attained.

Canadian Co-operation in NATO on Research, Development and Production

THE Department was given the responsibility of co-ordinating Canada's activities in connection with the efforts of the North Atlantic Treaty Organization to increase co-operation in research, development and production in order to attain maximum efficiency in standardization and production by member countries. The Department is represented on the NATO Armaments Committee, which has selected a number of projects to be studied for this purpose.

Close co-operation has been maintained between this Department and the Department of National Defence and other government agencies in this field. Canada has submitted a number of projects for consideration by the NATO groups, including the Caribou aircraft, a counter mortar radar, a land vehicle navigation set and variable depth sonar equipment.

This Department, the Department of National Defence and the National Research Council provided representation at meetings to review most of the projects, and provided necessary information on the Canadian proposals. In addition, representation was provided at meetings of existing groups of experts.

Arising out of these increased activities within NATO, several countries have expressed directly their interest in Canadian equipment, such as the counter mortar radar and the vehicle navigation set. Canadian firms were encouraged to become potential suppliers of military equipment to European countries.

Industry and Defence

PROCUREMENT and construction activity directly related to the Canadian defence preparedness programme represented just over one and one-half per cent of this country's gross national product in 1960, based on payments to Canadian prime defence contractors. This was a decline from 1.8 per cent in 1959, reflecting, for the year as a whole, the combined effects of reduced activity in some defence programmes and an increase in the non-defence sector of the Canadian economy.

Defence production is an important source of activity in only a few Canadian industries, as civilian demand is the major determinant in most industries in this country. Production and employment in the aircraft industry, which is the largest of the Canadian industries predominantly dependent on defence business, remained fairly stable throughout the year. Employment in the shipbuilding industry was at about the same level in 1960 as in the preceding year. The construction of the repeat-Restigouche class destroyer escorts, although just getting under way on some vessels, contributed to this maintenance of activity in the industry. The support given to the electronics and armament industries by defence production requirements declined in 1960. Defence construction activity was off only slightly from the preceding year.

The maintenance of an adequate defence production base in Canada has been assisted by the defence production and development sharing programme, with its emphasis on providing a greater degree of joint utilization of the defence production facilities in Canada and the United States and the need for Canadian industry to maintain a high standard of engineering and technical competence for development purposes. The assistance given to Canadian industry and the success achieved in this programme in 1960 are covered elsewhere in this Report. In a number of areas, Canadian industry's research and development capabilities produced new requirements for the military Services, some of which are also mentioned in preceding sections of this Report.

The Department continued its programme to establish sources in Canada for electronic component parts and materials essential to the production of modern military electronics. The object of this is to establish qualified sources of supply sufficiently in advance of requests from the Department of National Defence in order to ensure the maximum participation of Canadian firms in defence procurement, particularly in the electronics field. Because of the urgent nature of many military requirements, this advance qualification will make Canadian producers less dependent on United States and other sources of supply. A further aim is to prove the capability of producing a requirement at a highly competitive price as well as to required performance standards, thus enabling

Canadian sources to meet both United States and Canadian demand. Contracts valued at \$512,000 were issued in 1960 to provide for the establishment or extension of qualified sources for the production of certain types of capacitors, resistors, potentiometers, tachogenerators and miniature blowers, for the development and evaluation of high performance electronic components, and for the establishment of a ceramic manufacturing facility.

The Department continued to encourage private industry to make its own investment in the capital equipment required for defence production. In this way, defence production capacity would be more directly tied in with the general structure of Canadian industry. In some cases, however, direct Government investment and financial incentives were necessary to ensure the capacity essential to defence requirements. Such Government assistance to private industry was small in 1960.

Government financed capital assistance to private industry involved the expenditure of \$1,456,000, most of which was for the extension of a runway at the Cartierville, Que., airport. New approvals of capital assistance projects, which amounted to only \$248,000 in 1960, involved assets for the production of precision electric ceramics, fixed paper capacitors, military type transistors, as well as a further amount for the Cartierville airport project. Title to all capital assistance assets remains with the Crown, and the contractor responsible for their use is held accountable for their proper maintenance.

Additional capital cost allowance for income tax purposes (accelerated depreciation) was granted to some contractors on capital investment primarily for defence production or production supporting activity. Interim certificates for accelerated depreciation were granted on an estimated \$3.3 million worth of capital assets in 1960. These assets were mainly required for the development of a facility for a small gas turbine engine and for an aircraft engine test facility, the production of J-79 jet engines for the CF-104 aircraft, the production of CC-106 and CP-107 aircraft and the production of klystron tubes.

Crown-owned assets were rented to contractors for non-defence work in the interest of further integrating defence production equipment into the civilian sector. At the end of 1960, assets having a purchased value of \$17.5 million were authorized for rental by private firms for commercial use. In all cases, the interest of the Crown in the future use of these assets for defence production purposes was protected and the prices charged were such as to ensure a fair return to the Crown on the assets concerned.

Where it was not possible to keep necessary production facilities operating, either within the defence field or through the development of production for civilian markets, the assets were maintained in a state of readiness. Some \$570,000 was spent in 1960 on the care, maintenance and custody of standby Crown-

owned defence production facilities and equipment so that they would be available for future use.

Materials Supply

While some difficulties were experienced in obtaining satisfactory deliveries of materials to meet Canadian defence, atomic energy and production sharing programmes, most programmes were effectively kept on schedule with departmental assistance where required. Canada continued to depend on allocations under the United States Defense Materials System to satisfy the needs of defence and related programmes for those materials which are not available in this country. Planned expansions of facilities and new mills went forward without any interruption, and these will when completed substantially relieve Canada's dependence on foreign sources of supply. Ferrous and non-ferrous material production, with the exception of nickel, was gradually cut back by 10 to 25% of capacity.

The expansion of United States Government facilities for producing helium resulted in ample supplies being available to meet increased demands for defence and atomic energy programmes. Continuing search for sources of helium in Canada was maintained throughout the year, but there was no indication of any developments which could be brought into production economically. The expansion of nickel producing facilities and the development of new properties continued throughout the year. The increased yield from these activities placed Canada in a favourable condition to provide the deficit created by the closing of Cuban properties. Market demands for silver far exceeded production; this attracted attention to the existing world shortage and provided new strength to the price of silver.

The Department's production sharing programme increased production of the sole supplier of magnesium in Canada to the extent that production schedules were maintained at full capacity throughout the year.

The United States Defense Production Act was extended for a further two years. Although numerous amendments have been made since the Act was first passed in 1950, it continues to provide priorities and allocations for Canadian defence orders. Revisions in the United States Defense Materials System required a broader priority identification for Canadian defence and atomic energy programme purchases. Although our participation in the United States system does not impose the necessity of using all facets of the priority procedure, many Canadian defence contractors found it advisable to take full advantage of the special assistance available to them. These contractors generally obtained excellent results from the use of these priorities, particularly for higher technical materials in the electronic field. The United States "Master Urgency List" continued to include Canada's major programmes, thus ensuring equitable distribution of critical strategic components and materials.

Emergency Supply Planning

AN Emergency Supply Planning Branch was established in the Department in May, 1960, to be responsible for the planning and other peacetime arrangements necessary to permit a War Supplies Agency to be brought into effective existence immediately should a nuclear attack be made on this country. The Branch is strictly a planning body with no operating responsibilities.

Since the inception of the Branch, planning priority has been given to the development of an interim plan to meet the immediate basic supply needs of the country during the first few weeks after a nuclear attack. This interim plan has three major objectives: first, the development of an organizational framework for the War Supplies Agency and selection on a stand-by basis of suitable persons to staff it; second, the collection as rapidly as possible of inventory data on major stocks of food, fuel, and essential survival materials, and tabulation of these data in a form suitable for post-attack damage analysis purposes; and third, the preparation in draft form of the legal instruments necessary to permit effective control and use of commodities and production facilities available after a nuclear attack. Good progress has been made towards achieving each of these objectives.

The War Supplies Agency, when brought into existence at the outbreak of a nuclear war, would be charged with full responsibility for all aspects of control over the production, distribution and pricing of supplies, both civil and military, other than production on the farm and the catching and landing of fish. Responsibility for farm production and fishing activities would remain with the Departments of Agriculture and Fisheries respectively.

The specific functions of the War Supplies Agency are envisaged tentatively to be the following: post-attack assessment of surviving resources, to determine the availability of food, fuel, ready-to-use survival materials and so forth; assessment of supply requirements, based on claims submitted by other components of emergency government; comparison of supply requirements with availabilities; reconciliation of competing claims; establishment of priorities as required; arrangements for bulk re-distribution of food, fuel, survival materials and other essential commodities; regulation of all internal and external trade to whatever extent commercial activities may remain possible, particularly with respect to rationing, price control, and accommodation; procurement by any means of all goods and services required by government for civil or military purposes; control of industrial production, including the allocation of raw and semi-processed materials; determination of general questions of policy with respect to the production and distribution of supplies under nuclear war conditions.

In conformity with the arrangements being made through the Emergency Measures Organization for a decentralized system of emergency government, the War Supplies Agency would have central, regional, zonal and local elements. The staff would be a composite one, drawn from a number of federal departments and agencies, from provincial sources, and from non-governmental organizations.

By the end of the year the Emergency Supply Planning Branch had, in addition to its Ottawa staff, regional officers located in Halifax, Toronto, Winnipeg, and Victoria responsible for federal emergency supply planning in the Atlantic Provinces, Ontario, the Prairie Provinces and British Columbia respectively. At the end of the year a competition was underway to obtain a regional officer for the Province of Quebec.

Organization and Administration

Two changes in the basic organization of the Department were implemented during 1960. The first took place in May with the establishment of the Emergency Supply Planning Branch to carry out the task, assigned by the Government to the Department, of planning and making other necessary arrangements to permit the immediate creation of a War Supplies Agency in the event of a nuclear attack. A report on the activities of this new Branch in 1960 is contained in the preceding section. The second organizational change took place in October with the formation of the Armament Branch to replace the former Ammunition and Gun Branches. This change was designed to promote efficiency by adapting the departmental organization to the changing pattern of defence equipment needs.

Personnel on strength increased from 1,463 at the end of 1959 to 1,513 at the end of 1960. Of the latter number, 1,199 were located in Ottawa, 252 were employed in offices elsewhere in Canada, and 83 were employed outside the country. The increase in staff during 1960 resulted mainly from additional staff requirements for the Canada-United States defence production sharing programme and for the new Emergency Supply Planning Branch. The Department was also successful in obtaining qualified technical personnel in the aeronautics, electronics and weapons fields through intensive recruiting activity. In addition, the Department recruited cost analysts, estimators, field production officers and district office buyers. Seventy-four competitions were held to fill positions in the Department. There were 279 new appointments, 229 terminations, and 112 inter-branch transfers during the year.

An organization chart of the Department as at December 31, 1960, appears as Appendix A to this Report. The senior personnel at that date are listed in Appendix B, and the distribution of staff by units of the Department is shown in Appendix C.

Five Crown Corporations, whose work is closely allied with that of the Department, continued to report to Parliament through the Minister of Defence Production. A list of these companies and their principal officers is given in Appendix D. An account of the activities of these Crown agencies is contained in their respective Annual Reports.

Production and Purchasing Branches in Canada

During the first nine months of 1960, the procurement of defence supplies requiring specialized production facilities was the function of six production branches: Aircraft, Ammunition, Electronics, Gun, Machine Tool, and Shipbuilding. On October 1st, as mentioned above, the Ammunition and Gun Branches were combined to form the Armament Branch, thus reducing the number of production

branches to five. The General Purchasing Branch continued to be responsible for the supplies and services not normally requiring special production facilities. District purchasing offices in fourteen cities across Canada procured the supplies and services of a local or urgent nature required by defence establishments in the vicinity of the offices. The activities of these production and purchasing branches, including the district purchasing offices, are covered in the Production and Procurement section of this Report. A list of the district purchasing offices in Canada is contained in Appendix E.

Offices Located Outside Canada

The London Office conducted all procurement activity of the Department in the United Kingdom and directed the activity of sub-offices which handled procurement in Continental Europe. This Office procured from United Kingdom Government agencies, such as the Admiralty, the Ministry of Aviation and the War Office, and from a great variety of commercial firms. A small sub-office continued to operate at Prestwick Airport, Scotland, to expedite the repair and overhaul of aircraft and equipment for the Air Division in Europe. Procurement in France, chiefly through the Government of France, was undertaken by a sub-office in Paris; and procurement in the Federal Republic of Germany, chiefly through the Government of that country, was carried out by a sub-office in Koblenz.

The Washington Office continued to handle procurement from the United States Armed Services and, in some exceptional cases, from commercial firms in the United States. Practically all procurement from United States commercial sources was made directly by the appropriate production or purchasing branch in Ottawa. The Washington Office also maintained regular liaison with many United States Government agencies, handled Canadian participation in the United States priorities and expediting systems, and supplied a wide range of information to Canadian Government officials. This Office spent an increasing amount of time in connection with the Department's production and development sharing activities, which are covered elsewhere in this Report. In this connection, it handled a large number of inquiries and arranged numerous meetings involving Canadian and United States Government officials, contractors and subcontractors. The Washington Office directed the activity of a sub-office at Wright-Patterson Air Force Base, Ohio, involving operations with the Air Materiel Command of the United States Air Force.

Production sharing liaison offices were located in New York City and Rome, N.Y., Boston, Mass., and Los Angeles, Calif. A liaison office was also opened in Detroit, Mich., in January 1961.

The Department continued to be represented by two members on the Canadian Delegation to the North Atlantic Council in Paris, France. These

members were responsible for liaison with other national delegations and with the NATO international staff, and for making the Canadian viewpoint known on defence production matters of common concern to several members of the Alliance. They represented Canada on the NATO Armaments Committee which, in turn, controls a wide variety of expert working groups. In addition, they performed a number of duties in committees of the NATO Council engaged in emergency supply planning.

An office was opened in Bonn, Federal Republic of Germany, for the Canadian representative to the European Organization for Direction and Control of the F-104G programme.

The addresses of the Department's offices outside Canada are also shown in Appendix E.

Advisory and Service Branches

The Administration Branch conducted the personnel operations of the Department, provided office equipment and services, maintained a central transcribing pool, and carried out programmes of administrative, personnel and methods improvement.

In addition to the normal activities of the various sections of the Branch, several projects were undertaken which required close co-ordination among them. Increased production sharing requirements and the establishment of the Emergency Supply Planning Branch involved recruiting and orientating personnel, arranging accommodation for regional offices, allocating and laying out space requirements, and selecting and acquiring equipment. The general re-allocation of space at the Department's headquarters location in Ottawa involved planning space requirements, arranging for alterations and moving, and standardizing equipment in some of the production branches.

Appraisal forms for the promotion of secretaries and for some grades of defence production officers were developed by the Personnel Section, and Departmental records required for the group surgical-medical insurance plan were established. The Training and Development Section conducted orientation, contracting, accounting and industrial engineering courses for departmental personnel. A seminar on government buying was conducted for officials of fourteen African nations visiting Ottawa.

The graduate engineer training programme entered its third year with the hiring of six more graduate engineers. The five graduate engineers who joined the Department in the first year of this programme successfully completed their training and were assigned to the production branches.

The Comptroller's Branch provided the accounting service for the Department and for the Canadian Commercial Corporation, a Crown company associated with the Department. Services on behalf of the Corporation included special financial and accounting administration as required. Complete bookkeeping records, based as far as possible on commercial practice, were kept of the transactions against the Department's Parliamentary appropriations and of all assets and liabilities for which responsibility lies with the Minister of Defence Production. These assets include Crown-owned buildings and equipment in custody of private contractors or in warehouses. Their accounting involved physical identification in the field and the maintenance of a full inventory record by description, quantity and value. Test physical counts of materials carried in stock at various locations were also made during the year.

Records were maintained of the transactions arising out of various uncleared accounts taken over from predecessor departments, and with respect to disbursements and deliveries on NATO account which were covered by funds transferred to this Department by the Department of National Defence. The Branch carried out the financial administration of all agreements involving the sale to contractors of Crown-owned land, buildings and equipment, and all net revenues from the rental of Crown-owned factory properties. In addition, the Branch continued to provide the financial administration of the Defence Production Revolving Fund.

The Branch also maintained records of Department of National Defence equipment on loan to contractors through the Department of Defence Production, and contributed to the recording and administration work connected with the rental of Crown assets to contractors.

As in previous years, the Branch submitted monthly statements and reports to the Deputy Minister with respect to the Department. Similar statements and reports, on a quarterly basis, were submitted to the directors and responsible officers of Canadian Commercial Corporation. The Comptroller or his representatives attended various meetings with the Corporation directors and others during the year as required.

The financial position of the Department as at March 31, 1960, is shown in the Balance Sheet and related schedules given in Appendix G, duly certified and reported upon by the Auditor General.

The Economics and Statistics Branch provided the general economic and statistical services required by the Department. It undertook studies in these areas that would provide the Department with information on the effects of the defence procurement programme on various facets of the Canadian economy.

The large quantity of procurement requisitions received by the Department, contracts placed on behalf of the Department of National Defence and other requisitioning agencies, and payments made against these contracts were recorded

and tabulated. The processing of these records, which required the use of mechanical tabulating equipment, provided basic data for analysing the Department's procurement activities and the defence procurement programme. It was also possible to utilize this mechanical equipment for maintaining personnel records in the Department, for assisting the Emergency Supply Planning Branch to obtain regional inventory data, and for providing other branches of the Department with operational statistics.

Projections of defence procurement expenditures were made to provide the Department with an estimate of future procurement activity and to assist the Department of National Defence in the preparation of its budgetary estimates. This required the co-ordination and analysis of expenditure data from major defence contractors and close liaison with production officers.

A study of the effect of defence procurement on the Canadian electronics industry was undertaken, and a survey was made of marine bulk fuel storage facilities. Statistical reports measuring the progress of the Canada-United States defence production sharing programme were prepared regularly during the year. These reports involved periodic surveys of major defence contractors.

The Branch maintained liaison with other economic research and statistical units, both in and outside the Government Service, in order to obtain information necessary for economic appraisals of the defence programme, and to provide them with data on the defence sector of the Canadian economy. Information relating to defence procurement activity was prepared periodically for the North Atlantic Treaty Organization. Various firms and organizations were supplied with material relating to the Department's procurement activities.

Lists of unclassified defence contracts valued at \$10,000 and over awarded by the Department to firms in Canada were compiled and issued semi-monthly in the form of a press release.

The Financial Adviser's Branch acted in an advisory capacity with respect to the development and application of financial policies related to defence contracts.

All contract proposals involving commitments in excess of \$10,000 were reviewed to ensure that the principal terms conform to departmental policies and that the procurement proposed properly reflects the requirements of the requisitioning department. Special consideration was given to contract proposals for large commitments and to cases involving profit incentives. Submissions to Treasury Board were prepared and liaison with Treasury Board staff was maintained.

The Branch reviewed reports prepared by the Audit Services Division of the Comptroller of the Treasury following the audit of contracts, and co-operated with that Division and the procurement branches of the Department to resolve cost and profit problems with contractors arising from such audits.

Studies were undertaken on price terms of contracts for technical and field service representatives, on the costing of travelling and living expenses and on overhead cost considerations for mobile repair parties. Investigations were carried out concerning prevention or recovery of apparent overpayments of cost reimbursable contracts and the renegotiation of fixed fee contracts where the actual or estimated expenditure is expected to fall outside the original estimate because of the volume of work to be performed. Consideration was also given to the financial features of production sharing arrangements.

Applications from defence contractors for capital assistance or additional capital cost allowance (accelerated depreciation) were reviewed in the light of departmental policy. Declarations being made to Crown Assets Disposal Corporation covering surplus capital assistance assets, tooling, and production material were also reviewed and approved. Rentals of Crown-owned assets currently on charge to contractors were assessed following an annual survey covering the use of these assets by contractors for other than defence work. Where contracts were cancelled or terminated because of revised requirements, negotiations were conducted with the contractors concerned to achieve a satisfactory settlement. Advice was given on the application of sales tax, duty drawbacks and insurance coverage to defence contracts.

The Branch co-ordinated the preparation of the Department's estimates requirements, including the appropriations required by Crown companies responsible to Parliament through the Minister of Defence Production. The annual capital and operating budget submissions required from these companies under The Financial Administration Act were reviewed, as were their interim financial statements. The Branch also administered grants made in lieu of taxes to municipalities in which Crown-owned defence plants operated by private contractors are situated.

The Legal Branch advised all other branches of the Department on various legal matters, including the terms of proposed contracts, termination of contracts and claims by and against the Crown. It gave legal interpretations of The Defence Production Act and of the terms of current contracts, gave legal opinions on a wide range of departmental matters, and prepared some of the Department's submissions to the Governor in Council and the Treasury Board. It also advised in regard to assignment of contracts, title, risk, insurance, subcontracting, bankruptcy, patents, inventions, royalties, sales taxes, customs duties, and land matters.

One of the Branch's principal services was the drafting of contracts with Canadian industry following negotiation of the contract terms by the Department. In this field it was necessary to give special attention to new shipbuilding contracts because the Department commenced procuring large vessels on a firm price basis. This manner of procurement required more complex legal drafting than the former cost reimbursement type contracts.

Another new type of formal contract was that covering the granting by the Crown to Canadian industry of financial assistance under departmental Votes for design and development work and for preproduction and tooling costs in the interests of the Canada-United States production sharing programme. In addition, the CF-104 aircraft programme continued to call for various ancillary contracts and license agreements. Other formal contracts drawn by the Legal Branch covered electronic equipment, research projects, military vehicles and various other defence supplies for Canada's Armed Services and for the United States military departments.

In connection with these contracts, solicitors of the Legal Branch in many cases advised the purchasing, production and technical officers of the Department during their negotiations with representatives of Canadian industry. It was also necessary for the solicitors of the Branch to confer with lawyers representing industry in settling the legal content of the contracts.

Considerable assistance to and cooperation with the Department of Justice was necessary in regard to litigation resulting from claims by or against the Department based on differences arising out of contracts between the Department and Canadian suppliers. In connection with the day-to-day purchase of general items by the district purchasing offices of the Department, the Branch commenced a review of the contract terms covering all types of supplies in order to simplify and standardize such terms.

The Legal Branch handled all the legal work of Canadian Commercial Corporation, a Crown company which reports to Parliament through the Minister of Defence Production.

The Secretary's Branch administered the Department's Communications, Printing and Stationery, Central Registry, and Service Divisions. The Secretary, as the Department's official signing officer, endorsed formal contracts with suppliers and conducted departmental correspondence.

The Communications Division maintained a teletype service between Ottawa and the Department's offices in Montreal, Toronto and Washington. This service was available to other Government agencies on a pro rata basis and was extensively used by them. Approximately 100,000 telegraphic and teletype messages were cleared by the Division during the year. The "Telex" system, providing direct exchange of messages with other subscribers, was extended to cover all wire communications between the Department's headquarters in Ottawa and its Halifax office. Arrangements were completed during the year for the despatch of all departmental messages to Service installations in Canada through the Department of National Defence signal system.

The Central Registry was responsible for the creation of all needed files and for the control and protection of over 150,000 existing departmental files.

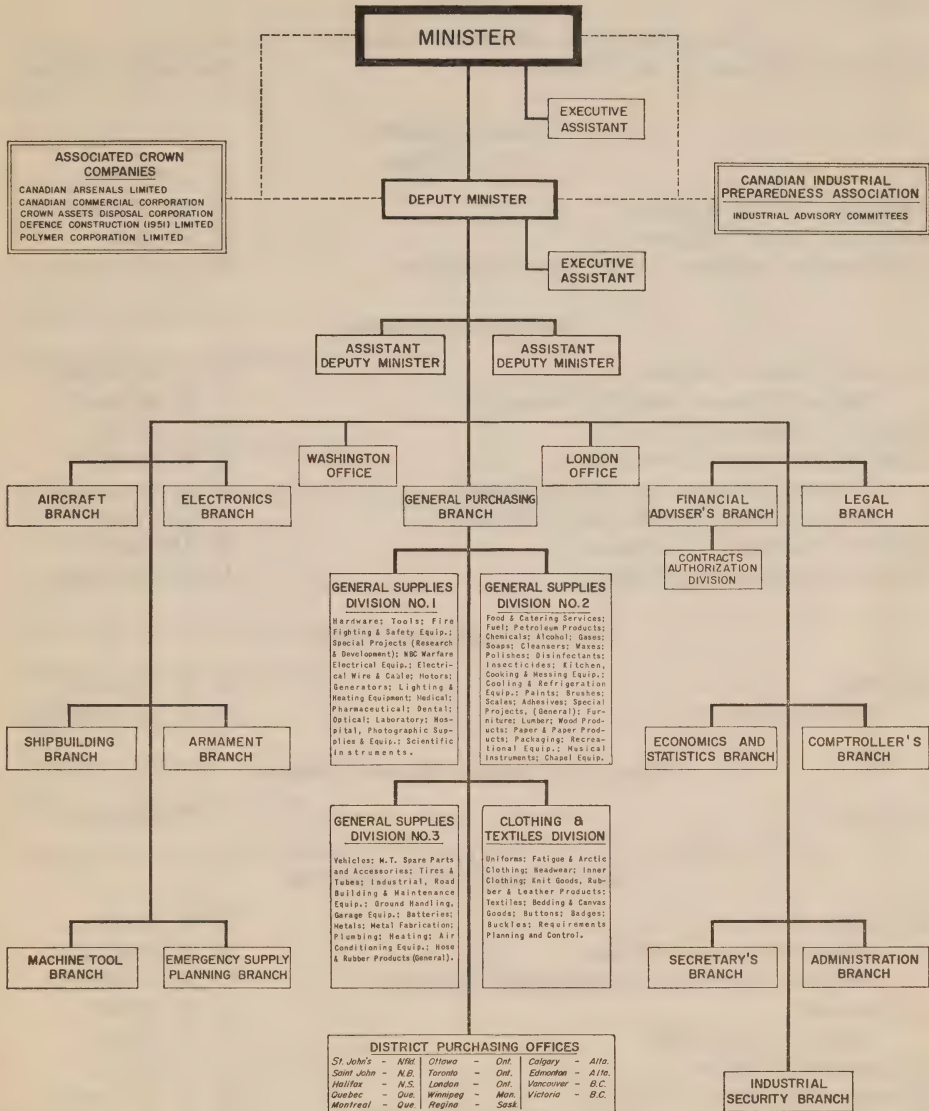
The Service Division continued to provide the procurement branches with lists of firms capable of producing required items; reproduced invitations to tender, contracts and amendments to contracts; distributed copies of these documents to appropriate recipients; received, guarded and opened all tenders received at Head Office; and was responsible for replying to inquiries regarding the award of contracts.

The Secretary's Branch supplied several continuing departmental committees with secretarial services and officers of the Branch represented the Department on various inter-departmental committees.

Appendix A

DEPARTMENT of DEFENCE PRODUCTION

ORGANIZATION as at DEC. 31, 1960



Appendix B

Senior Personnel of the Department

as at December 31, 1960

Minister

The Honourable Raymond O'Hurley, P.C., M.P.

Executive Assistant to the Minister Bernard E. Poirier

Deputy Minister

D. A. Golden

Assistant Deputy Minister G. W. Hunter
Assistant Deputy Minister W. H. Huck
A/Executive Assistant to the Deputy Minister W. J. Mulock

Production Branches

Director, Aircraft Branch D. L. Thompson
Deputy Director, Aircraft Branch A. D. Belyea
Director, Armament Branch C. L. Muir
Director, Electronics Branch D. B. Mundy
Deputy Director, Electronics Branch S. I. Comach
Deputy Director, Electronics Branch T. C. Jones
Director, Machine Tool Branch R. Mosher
Director, Shipbuilding Branch J. C. Rutledge

General Purchasing Branch

Director D. M. Erskine
Deputy Director R. C. D. Laughton

Emergency Supply Planning Branch

Director J. C. Morrison

Advisory and Service Branches

Financial Adviser R. M. Keith
Deputy Financial Adviser N. R. MacLean
Director, Contracts Authorization Division J. D. C. Mahaffy
Comptroller G. F. Wevill
Deputy Comptroller T. E. Brown
Departmental Secretary J. J. Tevlin
Director, Administration Branch H. R. Kotlarsky
Director, Economics and Statistics Branch W. J. W. V. Johnston
Director, Industrial Security Branch L. C. Cragg
Director, Legal Branch F. F. Waddell
Deputy Director, Legal Branch C. S. Stevenson
Director, London (England) Office R. D. Roe
Director, Washington Office J. A. Teeter

Appendix C

Distribution of Departmental Staff

as at December 31, 1960

	Number of Employees
Minister's Office	12
Deputy Minister's Office	31
Aircraft Branch	162
Armament Branch ¹	59
Electronics Branch	187
Machine Tool Branch	27
Shipbuilding Branch	105
General Purchasing Branch—	
Head Office	184
District Purchasing Offices	171
Emergency Supply Planning Branch	19
Administration Branch	79
Comptroller's Branch	85
Economics and Statistics Branch	34
Financial Adviser's Branch	57
Legal Branch	11
Secretary's Branch	190
Industrial Security Branch	25
Offices in the United States and Europe, and NATO Delegation, Paris	75
Total	1,513

¹ Formerly the Ammunition and Gun Branches.

Appendix D

Crown Companies Associated with the Department of Defence Production

as at December 31, 1960

Canadian Arsenals Limited

President	Major-General J. H. MacQueen
Vice-President	N. P. Petersen
General Manager	J. H. Berry
Secretary-Treasurer	D. C. Cullen

Canadian Commercial Corporation

President	M. H. Lamoureux
Secretary and Legal Adviser	F. F. Waddell
Comptroller	G. F. Wevill

Crown Assets Disposal Corporation

President and General Manager	Louis Richard
A/Secretary and Legal Adviser	M. J. Ellsworth

Defence Construction (1951) Limited

President and General Manager	R. G. Johnson
Secretary	J. D. Jennison
Treasurer	N. Tokaryk

Polymer Corporation Limited

Chairman of the Board	E. J. Brunning
President and Managing Director	E. R. Rowzee
Vice-President, Operations	L. D. Dougan
Vice-President, Finance	S. Wilk
Vice-President, Marketing	Roger E. Hatch
Vice-President, Research and Development	E. J. Buckler
Secretary and Chief Legal Officer	W. J. Dyke

Appendix E

District Purchasing Offices and Offices Located Outside Canada

Addresses as at December 31, 1960

District Purchasing Offices

ST. JOHN'S, NFLD.	Buckmaster's Field, Building No. 40 (P.O. Box 487)
HALIFAX, N.S.	Room 527, Federal Building, Bedford Row (P.O. Box 1655)
SAINT JOHN, N.B.	Room 408, Sadim Building, Canterbury & Duke Streets
QUEBEC, P.Q.	126 St. Peter Street, (P.O. Box 70—Station "B")
MONTREAL, P.Q.	1441 St. Urbain Street
OTTAWA, ONT.	953 Somerset Street, West
TORONTO, ONT.	Mackenzie Building, 36 Adelaide Street, East
LONDON, ONT.	388 Dundas Street
WINNIPEG, MAN.	Room 404, C.P.R. Building, 208 Portage Avenue
REGINA, SASK.	302, New Post Office Building
CALGARY, ALTA.	Room 725, Public Building
EDMONTON, ALTA.	906 Federal Public Building, 99th Ave. & 107 Street
VANCOUVER, B.C.	Room 407, Federal Building, 325 Granville Street
VICTORIA, B.C.	Room 318, Customs Building, Government Street

Offices Located Outside Canada

WASHINGTON, U.S.A.	Canadian Department of Defence Production, 2450 Massachusetts Ave., (P.O. Box 4897, Cleveland Park Station) WASHINGTON 8, D.C., U.S.A.
Sub-Office	MCL DDP Wright-Patterson Air Force Base, OHIO, U.S.A.
PRODUCTION SHARING LIAISON OFFICES ¹	Canadian Department of Defence Production, c/o Canadian Consulate General, 680 Fifth Ave., NEW YORK 19, N.Y., U.S.A.

¹ A production sharing liaison office was opened in Detroit, Michigan, in January 1961 at the following address:

Canadian Department of Defence Production,
1580 East Grand Blvd.,
Detroit, Mich., U.S.A.

ROP/DDP,
Rome Air Materiel Area,
Griffiss Air Force Base,
ROME, N.Y., U.S.A.

Canadian Department of Defence Production,
Los Angeles Air Procurement District,
1206 South Maple Avenue,
LOS ANGELES 15, Calif., U.S.A.

Canadian Department of Defence Production,
AMC/ESC/LEX
L. G. Hanscom Field,
BEDFORD, Mass., U.S.A.

LONDON, ENGLAND² Department of Defence Production (Canada),
Sackville House,
40 Piccadilly,
LONDON W. 1, England

Sub-Offices c/o Canadian Embassy,
35 avenue Montaigne,
PARIS 8, France

Viktoriastrasse 38,
KOBLENZ, Federal Republic of Germany

c/o Scottish Aviation Limited,
Prestwick Airport,
AYRSHIRE, Scotland

OFFICE OF DDP REPRESENTATIVE TO THE
NORTH ATLANTIC
COUNCIL

OTAN-NATO,
Place du Marechal de Lattre de Tassigny,
PARIS XVI^e, France

OFFICE OF CANADIAN
REPRESENTATIVE TO
THE EUROPEAN OR-
GANIZATION FOR
DIRECTION AND
CONTROL F-104G

c/o Canadian Embassy,
Zitelmannstrasse 22,
BONN, Federal Republic of Germany

² Effective March 28, 1961, the address of the London (England) Office will be:
Department of Defence Production (Canada),
No. 1 Grosvenor Square,
London, W. 1, England.

Appendix F

Statistics of Defence Contracts and Expenditures

The statistical tables in this appendix illustrate, in terms of the net value of contracts placed and the value of expenditures, the magnitude of various sectors of the Canadian defence procurement and construction programme during the calendar years 1958, 1959 and 1960.

The tables are grouped in pairs, with the first "a" containing data on the net value of contracts placed and the second "b" containing the value of expenditures against these contracts and against similar contracts placed in earlier years.

Tables 1-a and 1-b to Tables 4-a and 4-b contain statistics related to defence procurement by the Department of Defence Production and Defence Construction (1951) Limited for the Department of National Defence. Payments for this procurement are made from funds appropriated by Parliament for the Department of National Defence.

Tables 5-a and 5-b relate to certain activities in support of defence production activity that are paid for from Defence Production Parliamentary votes.

Tables 6-a and 6-b provide data relating to prime defence contracts placed in Canada by the United States Government through Canadian Government agencies such as Canadian Commercial Corporation. The Department of Defence Production places most of the contracts for Canadian Commercial Corporation.

The net value of contracts placed, as shown in these tables, includes the value of amendments which increased or decreased commitments under existing contracts, as well as the value of new contracts. In some cases, therefore, credit net values have resulted as decreasing amendments to contracts placed in earlier periods have exceeded the value of new contracts and increasing amendments issued.

The totals at the bottom of the columns do not always equal the sum of the programme values shown because of rounding the figures to the nearest thousand dollars.

Definitions of the Defence Programmes

The general concept involved in this defence programme classification is that of relating all procurement, as far as possible, to a readily identifiable military end-item, such as an aircraft, a ship, an electronic device, a gun, a type of ammunition, an item of clothing, etc. Thus a particular programme includes, in addition to the end-item, those components or parts that become an integral part of the end-item, as well as associated services such as design and development, installation, maintenance, and repair and overhaul.

- Aircraft:** This programme includes complete aircraft and items to be physically incorporated in complete aircraft, such as airframes, engines, propellers, electrical systems and their components. Government-furnished aircraft equipment and the repair and overhaul of aircraft are also included. Guided missiles are included in this programme. Excluded are accessories such as armament and communication equipment, navigational and flight instruments, photographic equipment, training devices and ground equipment.
- Ships:** This programme includes escort vessels, minesweepers, aircraft carriers, and other floating equipment, and ship components such as hulls and superstructures, propulsion machinery, boilers, condensers, heating and electrical systems. Reconversion, refit and repair of ships are also included. Armament and electronic gear are excluded.
- Tank-automotive:** Included in this programme are tanks and vehicles of both armoured and non-armoured types. Cars, trucks, and buses and their components, such as tires and tubes, are included. Excluded are armament and electronic equipment.
- Weapons:** The weapons programme includes small arms, guns, howitzers, and rocket launchers and their components. It excludes electronic fire controls.
- Ammunition and Explosives:** This programme comprises light, medium, and heavy ammunition of all types, including mines, depth charges, rockets, and torpedoes. Explosives and certain defence chemicals are also included in this programme.
- Electronics and Communication Equipment:** Electronics and communication equipment of all types are in this programme, including telephone, telegraph, radio and radar equipment. Underwater sound equipment and fire control equipment are also included. Development, maintenance, management and transportation services associated with the procurement of electronics and communication equipment are in this programme.
- Fuels and Lubricants:** This programme includes petroleum, gas, coal and coke, and their products.
- Clothing and Equipage:** All items of personal clothing, including footwear, and of personal equipment, such as mess kits and steel helmets, are in this programme.
- Construction:** This programme includes all construction contracts for building structures, runways, etc., as well as for consultant services, repairs and maintenance. Most of these contracts are placed by Defence Construction (1951) Limited.

Appendix F—Continued

All Contracts and Expenditures

Table 1-a.—Net Value of Total Canadian Government Defence Contracts Placed by the Department of Defence Production and Defence Construction (1951) Limited on behalf of the Department of National Defence

Programme	1958	1959	1960
	\$000	\$000	\$000
Aircraft	300,258	202,632	343,919
Ships	77,140	25,989	86,243
Tank-automotive	10,674	7,893	6,947
Weapons	10,570	7,651	6,099
Ammunition and explosives	21,298	11,398	13,604
Electronics and communication equipment	73,409	82,300	133,617
Fuels and lubricants	53,907	57,768	50,496
Clothing and equipage	6,124	18,808	6,284
Construction	66,956	67,141	51,571
Other	110,316	109,976	107,091
Total	730,650	591,556	805,871

Table 1-b.—Value of Expenditures on Canadian Government Defence Contracts Placed by the Department of Defence Production and Defence Construction (1951) Limited on behalf of the Department of National Defence

Programme	1958	1959	1960
	\$000	\$000	\$000
Aircraft	341,022	245,893	251,933
Ships	49,937	35,056	31,203
Tank-automotive	11,883	7,574	8,572
Weapons	18,153	12,963	9,436
Ammunition and explosives	24,857	32,930	16,599
Electronics and communication equipment	99,469	99,986	87,894
Fuels and lubricants	46,512	40,444	39,007
Clothing and equipage	7,088	20,639	4,123
Construction	48,516	67,723	64,193
Other	110,289	110,234	107,633
Total	757,727	673,441	620,592

Contracts and Expenditures in Canada

Table 2-a.—Net Value of Canadian Government Defence Contracts Placed in Canada by the Department of Defence Production and Defence Construction (1951) Limited on behalf of the Department of National Defence

Programme	1958	1959	1960
	\$000	\$000	\$000
Aircraft	307,049	170,609	307,293
Ships	75,306	25,337	85,304
Tank-automotive	9,521	7,912	7,198
Weapons	9,173	3,061	3,810
Ammunition and explosives	20,544	9,974	10,175
Electronics and communication equipment	58,296	80,373	99,301
Fuels and lubricants	53,499	57,453	50,205
Clothing and equipage	6,024	19,229	6,227
Construction	66,017	66,298	50,666
Other	105,710	103,814	100,437
Total	711,139	544,059	720,616

Table 2-b.—Value of Expenditures on Canadian Government Defence Contracts Placed in Canada by the Department of Defence Production and Defence Construction (1951) Limited on behalf of the Department of National Defence

Programme	1958	1959	1960
	\$000	\$000	\$000
Aircraft	324,645	230,288	210,958
Ships	48,431	34,089	29,632
Tank-automotive	9,554	6,946	7,829
Weapons	12,722	10,381	5,421
Ammunition and explosives	23,934	30,797	15,753
Electronics and communication equipment	73,749	83,264	73,307
Fuels and lubricants	46,139	40,208	38,759
Clothing and equipage	6,999	20,562	4,082
Construction	46,871	66,277	63,374
Other	105,520	105,191	101,193
Total	698,565	628,004	550,309

Appendix F—Continued

Contracts and Expenditures in the United States

Table 3-a.—Net Value of Canadian Government Defence Contracts Placed in the United States by the Department of Defence Production and Defence Construction (1951) Limited on behalf of the Department of National Defence

Programme	1958	1959	1960
	\$000	\$000	\$000
Aircraft	8,717 cr	25,873	31,415
Weapons	1,648	68 cr	950
Ammunition and explosives	482	1,181	497
Electronics and communication equipment	12,864	294	34,023
Other	3,769	2,967	3,532
Total	10,046	30,247	70,417

Table 3-b.—Value of Expenditures on Canadian Government Defence Contracts Placed in the United States by the Department of Defence Production and Defence Construction (1951) Limited on behalf of the Department of National Defence

Programme	1958	1959	1960
	\$000	\$000	\$000
Aircraft	12,331	10,212	36,729
Weapons	1,644	633	2,280
Ammunition and explosives	560	1,977	739
Electronics and communication equipment	24,830	14,734	13,472
Other	2,340	3,716	5,497
Total	41,705	31,272	58,717

Appendix F—Continued

Contracts and Expenditures in the United Kingdom

Table 4-a.—Net Value of Canadian Government Defence Contracts Placed in the United Kingdom by the Department of Defence Production and Defence Construction (1951) Limited on behalf of the Department of National Defence

Programme	1958	1959	1960
	\$000	\$000	\$000
Aircraft	1,921	6,130	5,166
Ships	147	172	590
Tank-automotive	1,091	130	467
Weapons	303 cr	4,611	1,322
Ammunition and explosives	237	217	2,902
Electronics and communication equipment	2,143	1,514	156
Other	857	1,646	1,084
Total	6,093	14,420	11,688

Table 4-b.—Value of Expenditures on Canadian Government Defence Contracts Placed in the United Kingdom by the Department of Defence Production and Defence Construction (1951) Limited on behalf of the Department of National Defence

Programme	1958	1959	1960
	\$000	\$000	\$000
Aircraft	4,041	5,002	4,235
Ships	1,314	187	232
Tank-automotive	2,026	416	436
Weapons	3,481	1,901	1,720
Ammunition and explosives	329	131	76
Electronics and communication equipment	784	1,870	982
Other	1,182	1,298	908
Total	13,157	10,805	8,589

Appendix F—Continued

Contracts and Expenditures in Support of Defence Production Activity

Table 5-a.—Net Value of Contracts Placed by the Department of Defence Production for Care, Maintenance and Custody, Establishment of Production Capacity, Source Establishment for Components, and Sustaining Technological Capability, and Value of Approvals for Capital Assistance

Category	1959	1960
	\$000	\$000
Care, maintenance and custody of Crown-owned standby defence assets	162	1,030
Capital assistance approvals	2,416	248
Establishment of competitive production capacity through absorbing certain preproduction and tooling costs	856	307
Establishment of qualified sources for the production of component parts and materials	356	512
To sustain research and development capability in Canadian industry in order to assist the Canada-United States development and production sharing programme .....	.....	2,425
Total	3,790	4,522

Table 5-b.—Value of Expenditures by the Department of Defence Production for Care, Maintenance and Custody, Capital Assistance, Establishment of Production Capacity, Source Establishment for Components, and Sustaining Technological Capability

Category	1959	1960
	\$000	\$000
Care, maintenance and custody of Crown-owned standby defence assets	216	570
Capital assistance	695	1,456
Establishment of competitive production capacity through absorbing certain preproduction and tooling costs	454	630
Establishment of qualified sources for the production of component parts and materials	171	268
To sustain research and development capability in Canadian industry in order to assist the Canada-United States development and production sharing programme .....	.....	2,033
Total	1,536	4,956

Appendix F—*Concluded*

United States Contracts and Expenditures in Canada

Table 6-a.—Net Value of United States Government Defence Contracts Placed in Canada through the Canadian Commercial Corporation and Defence Construction (1951) Limited

Programme	1958	1959	1960
	\$000	\$000	\$000
Aircraft	26,990	20,494	42,680
Ammunition and explosives	757	1,141	871
Electronics and communication equipment	12,756	35,804	14,752
Construction	25,631	12,025	9,995
Other	2,045	5,771	7,061
Total	68,180	75,234	75,359

Table 6-b.—Value of Expenditures by the United States Government on Defence Contracts Placed in Canada through the Canadian Commercial Corporation and Defence Construction (1951) Limited

Programme	1958	1959	1960
	\$000	\$000	\$000
Aircraft	37,005	27,476	25,588
Ammunition and explosives	1,742	1,870	314
Electronics and communication equipment	13,025	19,491	38,238
Construction	3,256	22,387	17,310
Other	2,738	2,042	4,075
Total	57,766	73,265	85,525

Appendix G

Report to the Minister on the Audit of the Accounts of the Department

for the year ended March 31, 1960

OTTAWA, October 25, 1960.

The Honourable Raymond O'Hurley,
Minister of Defence Production,
Ottawa, Canada.

SIR,

An examination having been made of the accounts maintained and the financial statements prepared by the Department of Defence Production for the year ended March 31, 1960, I now report that in my opinion,

- (a) proper books of account have been kept by the Department;
- (b) the financial statements of the Department
 - (i) were prepared on a basis consistent with that of the preceding year and are in agreement with the books of account;
 - (ii) in the case of the Balance Sheet, give a true and fair view of the state of the Department's affairs as at the end of the financial year;
 - (iii) in the cases of the Summary of Transactions in Equity Account (with supporting statements of Expenditure and Receipts) and the Summary of Transactions in Reserve Arising from Trading Operations, give a true and fair view of the operations of the Department for the financial year; and
- (c) the transactions of the Department that have come under my notice have been within the powers of the Department under The Defence Production Act and any other Act applicable to the Department.

In accordance with established governmental practice, the Crown-owned capital assets for which the Department is accountable are carried on the Balance Sheet at cost, without showing any deduction with respect to depreciation.

Yours faithfully,

A. M. HENDERSON,
Auditor General.

Appendix G—Continued

Balance Sheet as at March 31, 1960

GENERAL ACCOUNT

ASSETS		LIABILITIES AND GOVERNMENT EQUITY	
		GENERAL ACCOUNT	
Cash		\$ 175,659	\$ 38,896
Accounts receivable—			167,313
Sale of Crown plants and equipment ...	\$15,981,921		233,648,080
Renegotiation of contracts, World War II	35,677		
		16,017,598	
Advances—			
Crown agencies	13,500,000		
Other	7,572	13,507,572	
Investments, at cost—			
Polymer Corporation Limited, capital stock	30,000,000		
Township of Toronto, 3% debentures 1960-71	309,400		
Defence Construction (1951) Limited, capital stock	30		
Canadian Arsenals Limited, capital stock	28	30,309,458	
Crown-owned lands, buildings, machinery and equipment, at cost—			
With contractors, including rehabilitation and installation costs	46,490,967		
In warehouse	4,019,057		
Advances and progress payments	7,750,786		
		58,260,810	
Crown-owned plants, at cost		12,510,430	
Canadian Arsenals Limited plants, at cost		103,072,762	
		\$233,854,289	\$233,854,289

REVOLVING FUND

Accounts receivable	\$ 2,883,585	Accounts payable	\$ 1,189,358
Progress payments to suppliers ..	1,564,487	Progress payments from customers	1,905,241
Working capital advances—		Equity of Government of Canada—	
Canadian Arsenals Limited	7,500,000	Revolving Fund account, as provided by	
Inventories—		Defence Production Act, section 16	
Strategic materials, at cost	\$15,707,243	(authorized \$100,000,000), net expend- iture	\$20,666,596
Cloth, at cost or less—		Inventory taken over by Department at inception	3,728,584
Balance April 1, 1959	\$553,051	Reserve arising from trading operations, Schedule 2	238,781
Purchases	142,739		
	<u>695,790</u>		<u>24,633,961</u>
Less: Cost of sales	509,738		
	<u>186,052</u>		
Deduct: Material transferred to Department of National Defence	112,807		
	<u>73,245</u>		
	<u>15,780,488</u>		
	<u>\$27,728,560</u>		<u>\$27,728,560</u>

In addition to the assets listed above, the Department has recorded in its books expenditure in the amount of \$244,542,241 for production tooling, dies and jigs, title to which is vested in the Crown.

Approved on behalf of the Department.

D. A. GOLDEN,
Deputy Minister.

Certified in accordance with my report dated October 25, 1960, to the Minister of Defence Production.

A. M. HENDERSON,
Auditor General.

Summary of Transactions in Equity of Government of Canada Account

for the year ended March 31, 1960

Balance brought forward April 1, 1959		\$235,390,060	
<i>Additions:</i>			
Funds made available by means of appropriation and by statute	\$17,602,407		
Less: expenditure as per Schedule 1(a)	16,734,882		
Net equity acquired from appropriation		867,525	
Increase in working capital advance to the Canadian Commercial Corporation		2,000,000	
Transfer of assets from other departments and Crown agencies		1,526,220	
Capitalization of machinery and equipment previously charged as tooling expense, net		753,244	
			\$240,537,049
<i>Reductions:</i>			
Receipts from sales, etc., Schedule 1(b)		3,179,433	
Transfer of surplus assets to Crown Assets Disposal Corporation		1,392,549	
Depreciation and other allowances on sales of buildings and equipment		1,057,397	
Transfer of assets to other departments and Crown agencies		593,846	
Decrease in fixed assets in custody of Canadian Arsenal Ltd., as shown by the balance sheet of the company at March 31, 1960		350,706	
Assets written off due to termination of contracts, dismantling, etc.		202,376	
Rehabilitation and other expenses on machines no longer on record with the Department		112,662	
			6,888,969
Balance at March 31, 1960			\$233,648,080

Statement of Expenditure

for the year ended March 31, 1960

Vote			
68			
and	Departmental administration		
502	Salaries	\$ 6,453,539	
	Living allowances	98,751	
	Travelling expenses	234,544	
	Office stationery, supplies and equip- ment	216,249	
	Telephones and telegrams	162,040	
	Professional and special services	69,886	
	Postage	54,574	
	Freight, express and cartage	12,788	
	Purchase and production services by Crown agencies	4,564	
	Rental of office accommodation	1,347	
	Publication of departmental reports and other material	1,127	
	Sundries	11,398	
		<hr/>	\$ 7,320,807
69	Care, maintenance and custody of standby defence plants, buildings, machine tools and production tooling		343,267
70	Capital assistance		
	Capital account—		
	Construction, improvements and ac- quisition of land	851,774	
	Equipment	43,738	
	Income account—		
	Equipment for Crown agencies	4,620	
	Establishment of production capacity	843,531	
		<hr/>	1,743,663
	Less: charges to capital account	895,512	
	Establishment of production capacity, etc.	<hr/>	848,151
71	Grants to municipalities in lieu of taxes		105,020
and			
643			

72	Establishment of qualified sources for		
and	production of component parts and		
503	materials		296,097
504	Sustainment of technological capability in		
	Canadian industry		1,851,107
73	Defence Construction (1951) Limited—		
	Administration		3,051,307
	Canadian Arsenals Limited—		
74	Administration and operation		\$ 2,000,000
75	Construction and improvements	\$ 239,045	
	Equipment	662,766	
		<hr/>	901,811

Statutory

Minister of Defence Production—		
Salary	15,000	
Motor car allowance	2,000	
	<hr/>	17,000
Refund of prior years' proceeds from sale		
of surplus assets		315
		<hr/>
Total expenditure, per Schedule 1		<u><u>\$16,734,882</u></u>

Statement of Receipts**for the year ended March 31, 1960**

Receipts on Income Account—

Sales of surplus Crown assets	\$ 7,422,243	
Return on investments	4,256,460	
Rentals of buildings and equipment	209,775	
Refund of previous years' expenditure	12,560	
Miscellaneous	73,215	
	<hr/>	\$11,974,253

Receipts on Capital Account, per Schedule 1—

Sale of plant and equipment by the Department	3,117,301	
Repayment of debentures	21,166	
Recoveries of advances and accounts receiv- able	40,966	
	<hr/>	3,179,433
		<hr/>
		<u><u>\$15,153,686</u></u>

Summary of Transactions in Reserve Arising from Trading Operations, Revolving Fund

for the year ended March 31, 1960

Balance brought forward April 1, 1959		\$ 378,131
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Additions:

Sales, less cost of materials sold—

Cloth, Sales	\$ 591,846	
Cloth, Cost of Sales	509,738	
	<hr/>	82,108
Strategic materials, Sales	54,160	
Strategic materials, Cost of Sales	54,160	
	<hr/>
Shipbuilding components, Sales	3,093,871	
Shipbuilding components, Cost of Sales	3,093,871	
	<hr/>
Aircraft components, Sales	42,079	
Aircraft components, Cost of Sales	42,079	
	<hr/>
Ordnance, Munitions, etc., Sales	4,767,859	
Ordnance, Munitions, etc., Cost of Sales	4,767,859	
	<hr/>
		<hr/>
		460,239

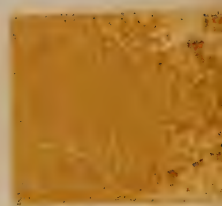
Reductions:

Warehousing and other expenses—cloth

Salaries and wages	113,499	
Rent	79,978	
Sundries	6,527	
	<hr/>	
	200,004	
Warehousing expenses—strategic materials	5,394	
Adjustment of receivables with concurrence of Department of Justice	16,060	
	<hr/>	221,458

Balance at March 31, 1960		<u><u>\$ 238,781</u></u>
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APR 25 1961



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CANADA

REPORT

of the

DEPARTMENT OF

DEFENCE PRODUCTION

January 1 to December 31, 1961

OTTAWA

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CANADA**



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ELEVENTH REPORT

of the

DEPARTMENT

of

DEFENCE

PRODUCTION

1961

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Honourable RAYMOND O'HURLEY, *Minister*

D. A. GOLDEN, *Deputy Minister*

ROGER DUHAMEL, F.R.S.C.
QUEEN'S PRINTER AND CONTROLLER OF STATIONERY
OTTAWA, 1962

Price: 35 cents Cat. No. P1-4/1961

*To His Excellency Major General Georges P. Vanier, DSO, MC, CD,
Governor-General and Commander-in-Chief of Canada.*

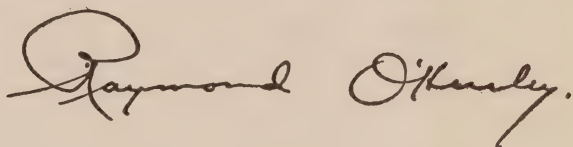
MARCH 3, 1962

MAY IT PLEASE YOUR EXCELLENCY:

I have the honour to submit to Your Excellency the Report of the Department of Defence Production for the calendar year 1961.

A summary of the operations and services rendered by this Department, under their respective headings, is laid before Your Excellency.

Respectfully submitted,

A handwritten signature in dark ink, reading "Raymond O'Hanley". The signature is written in a cursive style with a large initial 'R' and a long, sweeping underline.

Minister of Defence Production.

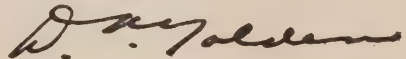
MARCH 2, 1962

The Honourable Raymond O'Hurley, P.C., M.P.,
Minister of Defence Production,
Ottawa, Ontario.

DEAR SIR:

I have the honour to submit the Report of the Department of Defence Production, which covers the operations and services rendered during the calendar year 1961.

Yours faithfully,

A handwritten signature in dark ink, appearing to read 'D. A. G. Alderson', written in a cursive style.

Deputy Minister.

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Introduction

UNDER the provisions of the Defence Production Act (R.S.C. 1952, Chapter 62, as amended), the Department of Defence Production has exclusive authority to procure the goods and services required by the Department of National Defence and the responsibility to ensure that the necessary production capacity and materials are available to support the defence production programme.

The Department also serves as procurement agent for the Canadian Commercial Corporation, a Crown company primarily responsible for the purchase in Canada of defence goods required by other governments and of supplies needed to meet Canadian commitments under the Colombo Plan and other international agreements.

Military construction is the prime responsibility of Defence Construction (1951) Limited, a Crown company reporting to Parliament through the Minister of Defence Production.

Three other Crown companies report to Parliament through the Minister of Defence Production. These are Canadian Arsenals Limited, Crown Assets Disposal Corporation and Polymer Corporation Limited.

Production and Procurement

THE supply of goods and services, including construction, for the Canadian defence preparedness programme involved payments to prime contractors totalling \$622.5 million in 1961. This was fractionally above the value in 1960 and represents the first increase in such defence spending since 1953. The net value of commitments to business and industry, however, as measured in terms of new contracts and increasing amendments to existing contracts, less decreases and cancellations, was \$528.8 million, one-third less than in the preceding year.

Canadian defence contracts placed with prime contractors located outside the country represented 4.9 per cent of the total value of contracts issued during the year. This was a significant decrease from the 10.6 per cent placed abroad in 1960. Although the largest value of the contracts placed abroad, \$16.7 million, went to the United States, the value of that country's prime contracts placed in Canada through Canadian Commercial Corporation amounted to \$97.5 million. As in past Reports of the Department, these figures refer only to prime contracts and do not reflect the indirect effects of subcontracting or the purchases of components, materials or services by the prime contractors.

Details of the production and procurement programmes, and reports on defence production and development sharing and on defence exports to overseas countries are given in the following pages. An account of the defence construction programme is contained in the Annual Report of Defence Construction (1951) Limited.

Aircraft

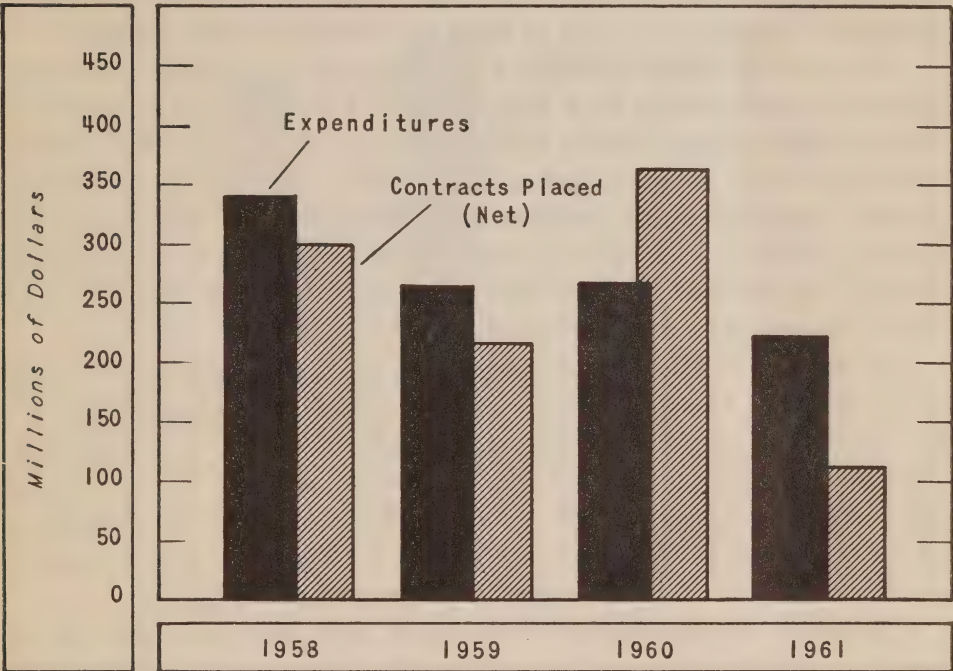
Aircraft and aircraft equipment requirements of the Department of National Defence resulted in expenditures to contractors of \$222.5 million in 1961. This is a decrease of \$44.3 million from the 1960 level. About 25 per cent of this was for repair and overhaul and 75 per cent was for development, procurement and production of aircraft and related systems.

Deliveries of the CC-106 long-range transport aircraft were completed in 1961.

Initial deliveries of the CF-104 Starfighter commenced during the year and the first two aircraft began a flight test programme at Palmdale, California. Subsequent aircraft produced began a flight test programme at the manufacturer's plant during the fall of the year. Plans were laid to establish a facility in Canada to produce gyros for the CF-104 inertial platform, and it is now expected that

the inertial navigation system will be wholly produced in this country. Canadian sources of supply were also established for CF-104 equipment previously purchased outside the country, such as pylons, tires, wheels, drag chutes, brakes, and instruments. Under an agreement between the Governments of Canada and the United States a number of F-104G aircraft, associated support equipment and initial spares are to be produced in Canada as a \$200 million mutual aid programme. The United States is to pay three-quarters of the cost and Canada is to pay one-quarter. These aircraft will be delivered to certain NATO countries beginning in 1963, when production of the aircraft of this type ordered for the First Canadian Air Division in Europe is completed.

Contracts and Expenditures for the Canadian Defence Aircraft Programme



Preliminary discussions and negotiations for the production of a new jet trainer, the CT-114 (CL-41), were commenced late in 1961.

Production of the Mk.1 Caribou aircraft continued during the year, and negotiations were started in connection with sales to the United States Army of additional quantities. Seventy-three of the Mk. 1 Caribou had been sold up to the end of 1961, and in January, 1962, an order for a further 53 was received from the United States.

Twenty-four CH-112 (Hiller UH-12E) light observation helicopters and four Cessna L-19L aircraft were delivered during the year. The United States companies supplying the helicopters were placing subcontract work in Canada on a

reciprocal basis. Orders were placed for a small number of CH-113 (Vertol 107-II) heavy helicopters, with deliveries scheduled for 1963.

Moderate activity continued on aircraft engine production. Approximately 100 J-79-7 turbo jet engines for the CF-104 aircraft were delivered during the year. Preparatory work was started on the production of J-79-11A engines for the F-104G mutual aid aircraft. Orders were placed for a small quantity of T-58 turboshaft engines for use in search and rescue helicopters.

The phasing out of older types of aircraft coupled with the introduction of new ones has once again caused a decline in work at Canadian repair and overhaul facilities. It is expected, however, that during 1962 a stabilizing effect will be felt within the repair and overhaul sector of the industry and conditions should remain fairly constant for some time. The introduction of more sophisticated aircraft and equipment will have an effect on the type of facility required.

The Aircraft Branch experienced an increase in development and production sharing activity during 1961. Members of the Branch participated actively on various working groups with the United States and NATO, as well as assisting Canadian industry to participate in United States and other foreign defence markets. Significant foreign contracts were placed with the Canadian aircraft industry, with both prime contracts and subcontracts received by Canadian firms showing a marked increase. A few contractors were successful in obtaining foreign defence business in the repair and overhaul field.

In the area of research and development, extensive development was done on the proposed Canadian manufacture of a photographic reconnaissance pod for external fitment to the CF-104 aircraft. Some other NATO countries have indicated an interest in this pod. Contracts were issued for an Earth orbital vehicle escape technique study for the United States Air Force, for development of the CL-91 high mobility tracked vehicle for the United States Army, and for development of the CL-89 surveillance and target acquisition system.

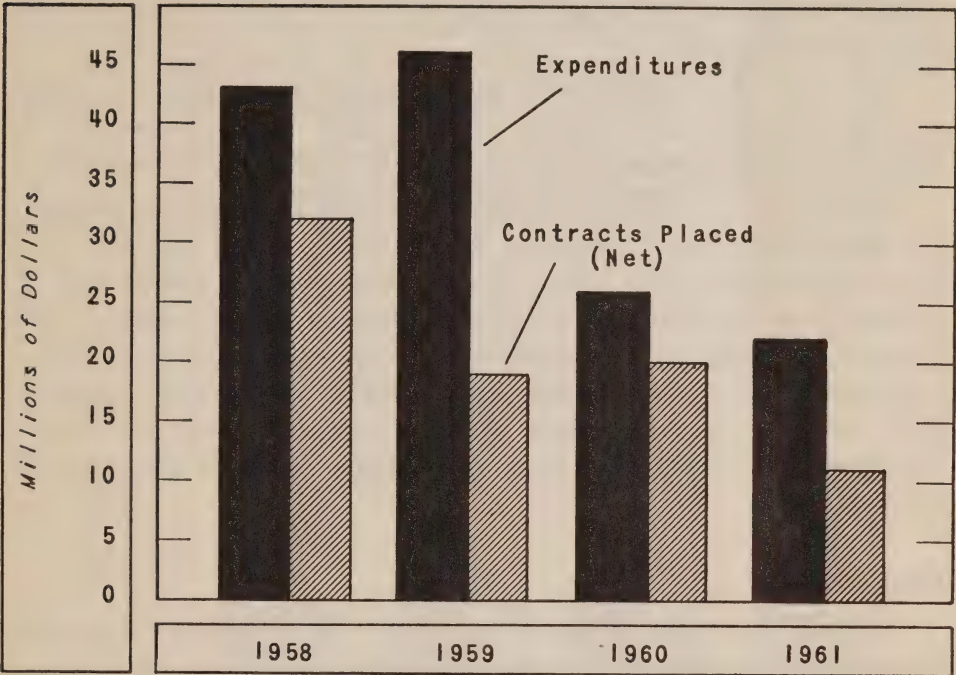
Research and development programmes were also undertaken in co-operation with Canadian manufacturers. One was a study of the feasibility of the design of an all-weather anti-submarine hydrofoil craft and the other was the development and testing of a high lift wing system for a short take-off and landing (STOL) fighter aircraft. The PT-6 turboshaft engine passed an official 50-hour preliminary flight rating test and was being flown in two aircraft. Development continued on a 600 HP gas turbine engine for the United States as a possible replacement for diesel engines in some applications.

Numerous engineering studies relating to future prime movers and lift engines were contracted for on behalf of the Defence Research Board, and preliminary planning commenced on the defence industrial applied research programme in the fields of aeronautics, prime movers and materials.

Armament

Requirements of the Department of National Defence for ammunition and weapons were reduced in 1961, with payments to contractors declining slightly to \$22.3 million. In an attempt to offset the effect on industry of this reduction, a strong effort was made to locate and exploit opportunities for Canadian firms to participate in defence development and production programmes of the United States and other NATO countries. This resulted in a significant increase in the value of armament prime contracts and subcontracts placed in Canada by other countries.

Contracts and Expenditures for the Canadian Defence Armament Programme



Production for the Canadian Armed Services was completed on contracts for .30 calibre small arms ammunition, anti-submarine projectiles, pyrotechnic devices and naval gun weathershields. Among the major items under production were practice depth charges, 9mm, 20 pounder and 105mm howitzer ammunition, 4", 3"/50 calibre and 3"/70 calibre naval gun ammunition, torpedo warheads, spares for 3"/70 calibre naval guns, 7.62mm C1 automatic rifles and spares, 9mm sub-machine guns, navigational aids, trainfire target devices, mortar base plates, various types of sights, anti-submarine devices, and high altitude rockets. Production of 105mm armour piercing ammunition, practice bombs and pyrotechnic devices was initiated in 1961. Action towards procurement was taken on

two new anti-tank weapon systems for the Canadian Army and an improved design of acoustic homing torpedo for the Royal Canadian Navy and the Royal Canadian Air Force. It is expected that these will create increased procurement activity in the weapons systems field in 1962.

In the field of research and development, a feasibility study was undertaken in connection with the launching of test rockets from aircraft to altitudes of 100,000 feet and velocities up to ten times the speed of sound. The Black Brant development programme to meet United States requirements progressed satisfactorily and the Black Brant III is scheduled for flight testing in the Spring of 1962. This project has resulted in a decision by a private company to plan the establishment of production facilities in Canada to manufacture solid rocket propellants, missile motors up to 30 inches in diameter and 30 feet in length, and other missile hardware.

A quantity of nitroguanidine was purchased by the United States Government from the production facility located in this country. The maintenance of this nitroguanidine facility has been jointly financed by Canada and the United States.

During the year the Branch participated actively in the defence production and development sharing programme. It is significant that at least half of the United States defence prime contracting and subcontracting in Canada under the guidance of the Armament Branch was in two new areas of participation: missile hardware and special purpose vehicles designed to meet United States military requirements. The Branch was also active in NATO working groups concerned with joint development programmes in the armament field and was active in encouraging procurement in Canada from Britain and other Commonwealth countries.

Electronics

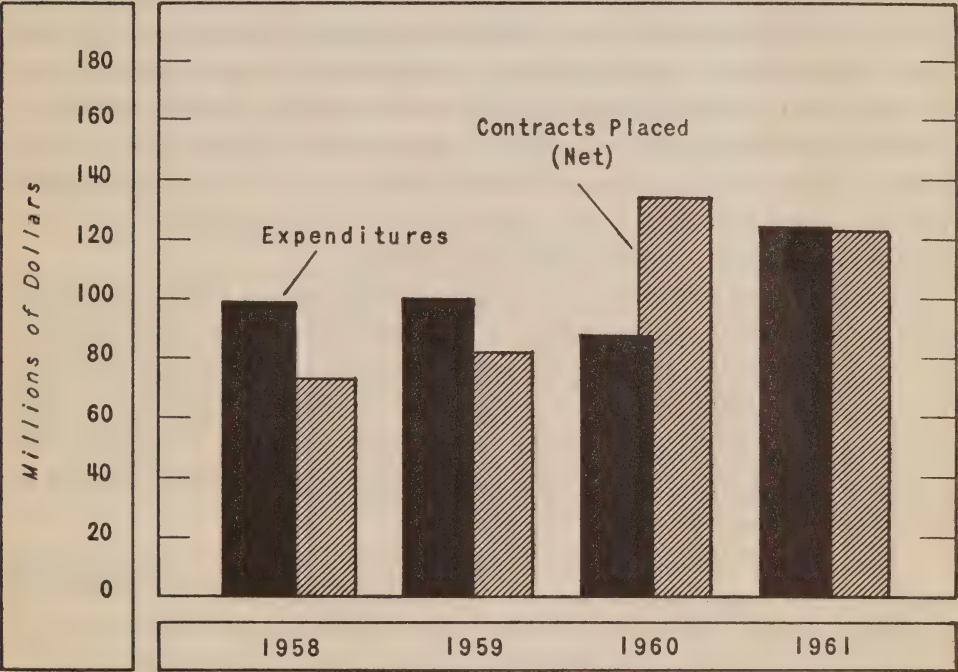
Canadian defence requirements for electronic and communication equipment resulted in an expenditure of \$123.8 million in 1961. This is a significant increase over the previous year and reflects the higher level of contracting in 1960. Production and development accounted for two-thirds of the 1961 expenditures, while operating and maintenance requirements accounted for the balance. In addition to expenditures on Canadian defence requirements in this field, some \$50 million was spent in Canada for the electronic requirements of other governments.

Production of aircraft electronic equipment continued to be a major sector of the electronics programme, particularly of those items required for the CF-104 aircraft. Canadian production was underway on such items as the NASARR system of fire control and terrain avoidance, bomb toss computers, air data computers and sight optical display and computer equipment for the CF-104. Initial quantities

of some of these items were procured from United States sources to meet the line production requirements of the aircraft until Canadian output was achieved. Planning activities were begun to ensure an adequate supply of electronic items for the F-104G aircraft to be produced under a Canada-United States mutual aid programme. Requirements of other governments, particularly for doppler navigation equipment and position and homing indicators, contributed to the increased production in the field of aircraft electronic equipment.

Production and installation was completed on the microwave air defence communication system (ADCOM) for the Royal Canadian Air Force. Installation of additional heavy radars and their data processing equipment for the general air defence network in Canada was continued. The CADIN/SAGE leased line communications programme was about two-thirds completed at the end of the year. Deliveries were maintained on an airfield traffic control system which will co-ordinate communication facilities for air traffic control at airfields of the Royal Canadian Air Force in Canada and abroad.

Contracts and Expenditures for the Canadian Defence Electronics and Communication Equipment Programme



In connection with the national survival programme, all major items of equipment for the Canadian Army's main communications control centre, which will provide extensive telephone and telegraphic facilities on both line and radio links, were under contract. Contracting and production continued on equipment

for the ten provincial communication centres and the national survival attack warning system. A beginning was made on leasing communication facilities for this programme.

Production of sonar and sonobuoys continued, while production of gyro compasses, logging equipment and plotting tables for the Royal Canadian Navy was completed. Plotting tables were also in production for the United States Navy. Variable depth sonars were manufactured for the Royal Navy and sonobuoys for the United States Navy. A contract was placed for an additional quantity of VT fuses. Work continued on a joint Canada-United States development programme for moored sonobuoys.

In the field of radiac detection equipment, pen and locket type dosimeters for the personal detection of radiation were manufactured in Canada. Pre-production work was done on radiacmeters and chargers, and a radiac activity training kit was produced.

There was a drop in production of radars for air defence systems, but design and production for countermeasure equipment, radomes and counter mortar radars was continued. Electronic counter countermeasure receiver groups were in production, but production of the anti-jamming consoles was awaiting the requirement for spares. These items are for use in the Pinetree Line ground radars. Production neared completion on an order for height finding radars and spares. Modification kits were being produced for two types of radars to enable them to perform an airport surveillance function as well as a ground controlled approach function. Contracts for electronic countermeasure devices and spares for radars were received from the United States Air Force. Requirements for data processing equipment also began to offset the decline in radar production.

Production got underway on a quantity of fixed ground navigation beacons (TACAN) for use at airports in Canada occupied jointly by the Royal Canadian Air Force and the Department of Transport. Contracts were placed for the supply of mobile RAPCON's to improve flying safety conditions at the fighter wings of the First Air Division in Europe. These RAPCON's are complete mobile operations centres including all equipment necessary to control the landing of aircraft under conditions of poor visibility.

Production of training aid simulators continued. The tactical crew procedure trainer for the Argus aircraft and the operational flight trainer for the Yukon (CC-106) aircraft were delivered to the Royal Canadian Air Force. Production proceeded satisfactorily on the CF-104 operational flight and tactics trainer for the Royal Canadian Air Force and other NATO air forces. A models control trainer was completed and delivered to the Royal Canadian Navy.

Maintenance, repair and overhaul, and contracts for leased lines increased significantly during the year as a result of progress on the air defence networks

and the taking over by the Royal Canadian Air Force of some of the United States Air Force Pinetree Line sites. Operation and maintenance of the Mid-Canada Line was continued. Production of component spares for Canadian requirements was reinforced by some production for the United States. The accumulation of necessary engineering and technical knowledge was begun by a Canadian company in connection with a new repair and overhaul programme on the fire control system in the CF-101 Voodoo aircraft.

In order to maintain a satisfactory level of Canadian content in equipment production for both Canadian and external requirements, the Department's programme in support of the establishment of qualified sources for component parts and materials was continued. Support was given to provide qualified sources for such components as military transformers, hydrophones, microwave components for the NASARR system and various sizes of synchros. Industrial initiative in the selection of suitable areas for such support has increased.

With a view to ensuring future production for external requirements, there was continuing activity in support of Canadian industry proposals for the development of new equipment in advance of the formulation of defence requirements. Financial assistance was given for development of such items as a search and rescue beacon, a K-band doppler navigator, the transistorization of doppler equipment for vertical and short take-off and landing application, anti-submarine data processing equipment, and an extended life sonobuoy that can be dropped from aircraft. Consideration was being given to other such proposals from Canadian industry.

A joint Canada-United States financed programme for development in this country of an infrared acquisition unit for the Mauler system was approved and a contract awarded to the Canadian contractor. The Mauler is the United States Army's newest forward area air defence missile system under development, designed to destroy supersonic enemy aircraft, short range ballistic missiles and rockets in the battlefield area.

Planning with the Defence Research Board was begun to provide support for some projects under the new defence industrial applied research programme.

Shipbuilding

The shipbuilding programme in 1961 included work on six destroyer escorts, a tanker-supply vessel, a hydrographic survey vessel, eight auxiliary vessels, numerous small boats, and related design, planning and procurement activity.

Work continued satisfactorily on all six destroyer escorts in the repeat-Restigouche programme. The last two vessels are an improved version of the first four, the major changes being modifications to include a helicopter flight deck

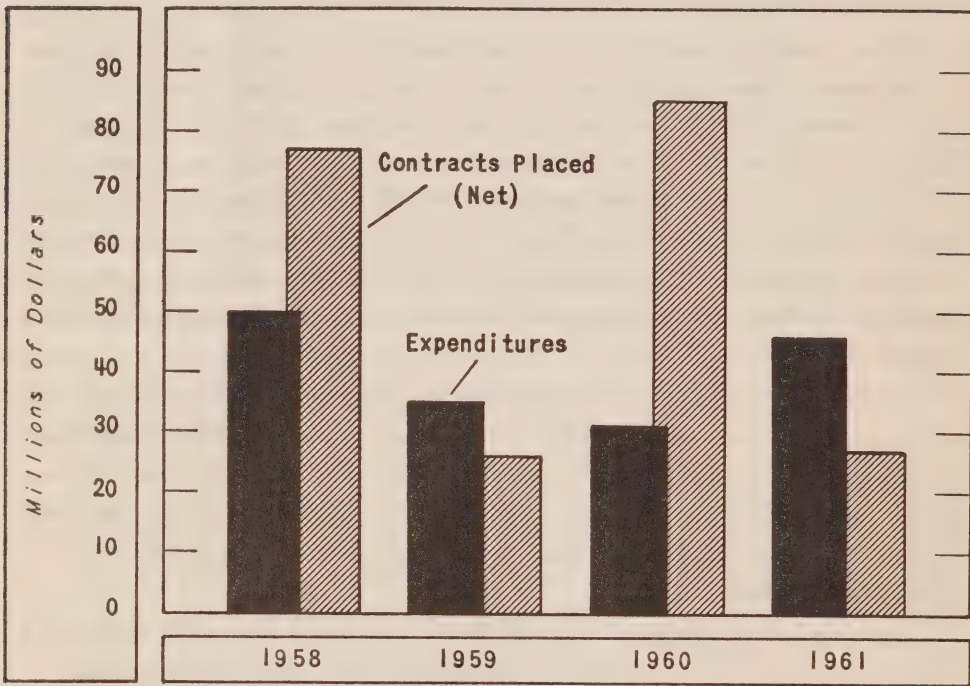
with hangar and the fitting of variable depth sonar equipment. All important contracts were placed for the supply of the necessary components for this programme.

Work on the tanker-supply vessel for the Royal Canadian Navy progressed on schedule. Hull construction and component production proceeded satisfactorily.

A standard diving vessel, a tank cleaning barge and five stevedoring barges were all completed and accepted by the Royal Canadian Navy in 1961. A contract was placed for an additional tank cleaning barge as a result of competitive tenders.

Construction continued on a hydrographic and oceanographic survey vessel for the Department of Mines and Technical Surveys. Specifications for two more hydrographic survey vessels were received and contracting will be undertaken.

Contracts and Expenditures for the Canadian Defence Ships Programme



Drawings and design documents necessary to invite tenders for construction of a Pacific Naval Laboratories research vessel were completed. Drawings for the modernization programme of the St. Laurent class destroyer escorts will be completed early in 1962. Procurement of equipment for this modernization programme is proceeding.

Maintenance of the Fleet involved fifty-four contracts for ship repairs and refits during 1961 at an approximate value of \$7.7 million. These contracts were widely distributed.

The majority of contracts for new construction were on a competitive firm price basis. In connection with major repairs and refits, target incentive type contracts were successfully introduced. The general pattern in contracts in both shipbuilding and ship repairing was of a type to encourage cost reductions.

The Naval Shipbuilding Central Procurement Agency continued its operation under the supervision of this Department. This agency is responsible for the bulk purchase, distribution and accounting associated with the supply of much of the equipment and material required to be worked into vessels of the repeat-Restigouche class.

Negotiations were concluded for the establishment in Canada of production facilities for the manufacture of noise reducing five-bladed propellers for naval ships.

The Branch continued to be active in the Canada-United States production and development sharing programme. There was an increase in the prime contracts placed with Canadian manufacturers for such items as motor generators, valves, shafting, propellers and repairs to small vessels.

Machine Tools and Gauges

Machine tools and allied equipment valued at \$555,000 were purchased in 1961, of which 87 per cent was required by the Department of National Defence to meet the current requirements of the Armed Forces, and the remainder was purchased for Canadian Arsenals Limited and Canadian Commercial Corporation.

The care, maintenance and custody of standby Crown owned defence assets involved the issuance of contracts amounting to \$212,710. These contracts covered the cost of maintaining various facilities in standby condition or in storage, as well as the cost of transportation and the repair and overhaul of a number of machine tools. Capital assets and production tooling for the M51A5 fuse and 2.75" rocket programmes were transferred to storage. All operations at the Malton and Nobel, Ont., high altitude test facilities were closed down, and a large quantity of capital equipment, test equipment and surplus stores from Nobel was transferred to the National Research Council at Ottawa, Ont. This equipment will be used for further experimental work by the National Research Council and will offset the need to purchase similar material and equipment.

Gauges valued at \$78,000 were purchased for the Inspection Services of the Department of National Defence.

The inspection and technical personnel of the Machine Tool Branch continued to be called upon by other branches of the Department for plant surveys, time study reports and other technical assistance involving machine tools and general production capabilities.

In connection with the defence production and development sharing programme, Canadian machine tool manufacturers began taking an active interest in soliciting United States defence business. Machine tool firms tendered on various types of grinding machines, lathes, special gun drilling machines, tool and cutter grinders, and machines built to special specifications.

General Purchasing

The General Purchasing Branch issued 143,400 contractual documents during 1961 for a wide range of goods and services that are normally available from the domestic market. The value of these contracts amounted to \$181.4 million.

The headquarters organization of the Branch placed major contracts for medical and dental stores, lamps, photographic equipment and supplies, canned and preserved foods, paper products, packaging materials, building supplies and hardware, furniture and furnishings, and appliances, as well as other barrack, camp and hospital stores. Also purchased centrally through headquarters were petroleum products and solid fuels, clothing and footwear, electrical power generating control and distribution equipment, aircraft ground handling equipment, and all types of mechanical transport, construction and road maintenance equipment. Services such as repair and overhaul, engineering studies, food catering, aerial surveys, and certain research and development projects were contracted for by the headquarters organization.

Canadian markets were thoroughly explored in order to promote the maximum participation by Canadian industry in the manufacture of ground handling equipment for the CF-104 aircraft. Significant orders were placed with firms in this country for noise suppressors, engine trailers, munition trailers, test equipment, maintenance tools, and combined ground services equipment. Research projects undertaken during the year included an investigation into the use of lignin as a rubber reinforcing agent, a study of the combustion characteristics of liquid hydrogen, and the design and development of a high acuity film processing machine for the United States Air Force. Repair and overhaul contracts were awarded for such items as ground handling equipment for aircraft, aerial cameras, air-sea rescue material, fire fighting equipment, parachutes and mechanical transport. Emergency health and welfare supplies and certain Canadian Army requirements in support of the national survival programme were purchased by headquarters. These included packboards, litters, rope, jacks, pumps, derrick kits, pharmaceuticals, drugs, ration packs, electric warning sirens, detection and fire fighting apparatus, rescue equipment, ladders, shovels, personal protective respiratory apparatus, special filters for installation in military vehicles, and electrical power generating equipment.

A Canadian company was awarded the contract for the initial supply and installation of dual fuel gas turbine generating sets and waste heat boilers at

five radar sites. This equipment will supply electrical power requirements and provide heat for various buildings at these locations. A product improvement programme was undertaken on the "Bobcat" family of light tracked vehicles, and when this phase is completed 20 preproduction pilot vehicles will be manufactured. Initial action was taken to procure textiles and components required to manufacture the various items of apparel comprising the new Army combat uniform. Field boots, produced by the direct moulded sole process, were ordered in Canada for the first time.

A number of substantial purchases were made on behalf of the Colombo Plan for delivery to Pakistan, Ceylon, Indonesia, Vietnam, India and Malaya. These included flour, wood pulp, newsprint, chemical fertilizer, dump trucks, steel towers, electric cables, vertical water wheel generators, turbines, circuit breakers, transformers and insulators.

The fourteen district offices of the Branch arranged contracts with regional suppliers across Canada for fresh food, stores and services required for immediate use by military establishments in the areas concerned. This decentralized procurement activity involved a total of 127,700 contractual documents valued at \$59.4 million. The national survival programme increased the procurement tempo throughout the district offices as well as at headquarters. All such requirements were given precedence and the normal procurement period was greatly reduced. The district purchasing agents processed in record time a diversified range of demands covering building materials, extensions to the warning siren system and construction of fallout reporting posts. District purchasing agents attended a conference at headquarters during April for the purpose of exchanging views and developing improved purchasing methods and procedures.

Contracts and Expenditures

Defence procurement and construction contracts issued in 1961 by the Department of Defence Production and its associated Crown company, Defence Construction (1951) Limited, for the Department of National Defence had a net value of \$528.8 million. (The net value of contracts is made up of the value of new contracts issued as well as amendments that increased or decreased existing contracts.) Expenditures against these Canadian defence contracts amounted to \$622.5 million in 1961, thus reducing by \$94 million the outstanding value of defence business held by prime defence contractors.

In addition to these Canadian defence commitments, contracts valued at \$172.6 million were placed against this Department's Votes for assistance to defence industry and its Revolving Fund, for other Canadian Government departments and agencies, and for foreign governments.

The net total of all contracts issued by this Department and Defence Construction (1951) Limited in 1961, therefore, was \$701.4 million. This was 23.3 per cent less than the comparable total of \$914.0 million in 1960. The net value of contracts according to the various sources for which they were issued is as follows:

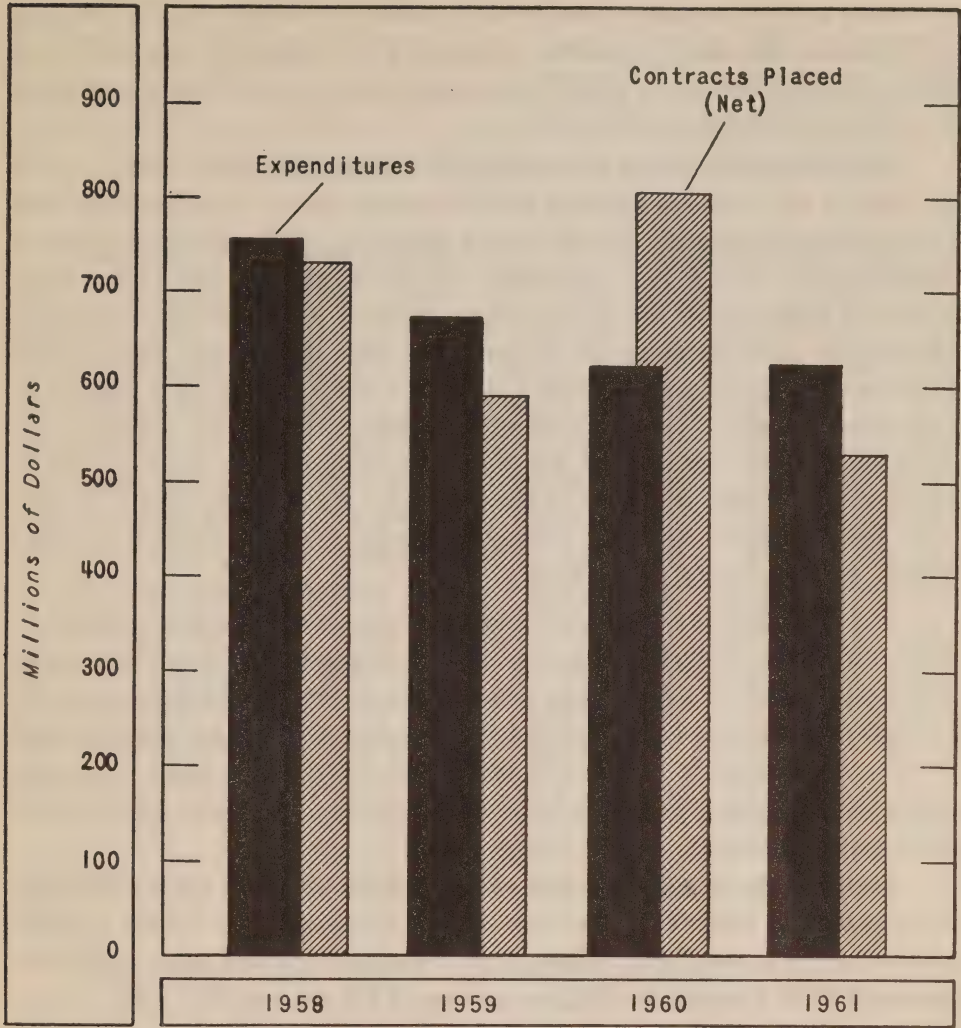
	<i>Net Value</i>	<i>Per cent of Total Value</i>
Department of National Defence	\$528,773,000	75.4
Department of Defence Production (DDP Votes and Revolving Fund)	56,562,000	8.1
Foreign Governments:		
United States	97,544,000	13.9
Britain	2,053,000	.3
Other Governments	1,006,000	.1
Canadian sources other than DND and DDP:		
Colombo Plan	9,855,000	1.4
Other Canadian sources	5,588,000	.8
TOTAL	\$701,381,000	100.0

Contracting for DND—The \$528.8 million in Canadian defence contracts placed in 1961 was 34.3 per cent below the value in 1960. The aircraft programme accounted for the major part of this decrease, falling from \$363.2 million in 1960 to \$113.2 million in 1961. The 1960 value was particularly high, however, because of large-valued contracts placed in connection with Canadian production of CF-104 aircraft. The main new programme in 1961 was for the purchase of helicopters. Increasing commitments were made for CC-106 long-range transport aircraft and for spares and accessories in connection with the CF-104 programme. Repair and overhaul contracts continued in large volume.

Contracts having a net value of \$122.6 million were placed for the electronics and communication equipment programme in 1961. This was a decrease of 8.3 per cent from 1960. Increased commitments were made in 1961 for electronic equipment associated with the CF-104 programme, particularly the NASARR system of fire control and terrain avoidance. New contracts were issued for navigation beacons, anti-submarine data processing equipment, sonobuoy transmitters and operational maintenance of the Mid-Canada Line.

Shipbuilding and repairing contracts also declined significantly in 1961, dropping to \$26.6 million from \$84.7 million in 1960. The large 1960 figure included contracts for four destroyer escorts and a tanker-supply vessel. In 1961, the largest contracts in the ships programme were for the operation of the Naval Central Procurement Agency and for completion of the structure and outfitting of a destroyer escort.

Contracts Placed on Behalf of the Department of National Defence and Expenditures Against Such Contracts



Armament contracts (which include weapons, ammunition and explosives) declined from \$19.7 million in 1960 to \$11.3 million in 1961. The larger contracts issued were for 105mm shells, 7.62mm cartridges and reworking of 7.62mm C1 rifles.

A contract was issued for completion of the "Bobcat" family of vehicles to the production stage, including a number of preproduction models. Construction contracts increased from \$51.6 million in 1960 to \$90.7 million in 1961. Contracts for projects associated with the Pinetree Line radar sites, the national survival programme and semi-automatic ground environment (SAGE) installations accounted for much of this increase.

Expenditures on Canadian defence procurement and construction amounted to \$622.5 million in 1961, 0.3 per cent more than in 1960. Expenditures for electronics and communication equipment increased \$36 million to \$123.8 million, and those for the ships programme increased \$14.8 million to just under \$46 million. Expenditures on the aircraft programme, however, fell off by \$44.3 million to a level of \$222.5 million in 1961.

Contracts placed outside Canada in 1961 amounted to \$26.1 million, or 4.9 per cent of the total net value of prime contracts issued. This compares with \$85.3 million, representing 10.6 per cent of the total in 1960, when large contracts associated with the CF-104 programme were placed abroad. The United States received 3.2 per cent of the total contracts placed in 1961, Britain received 0.9 per cent and other countries 0.8 per cent. The value of payments made directly to prime defence contractors outside Canada was \$65.3 million, 10.5 per cent of total payments on defence procurement and construction in 1961. Contractors in the United States received 8.3 per cent of total payments, those in Britain received 1.5 per cent, and those in other countries 0.7 per cent. In the previous year, direct payments to prime contractors outside Canada amounted to \$70.3 million, or 11.3 per cent of the total.

The United States received Canadian prime defence contracts valued at \$16.7 million in 1961. This was a substantial decrease from the \$70.4 million recorded in 1960. The major new commitments in the United States were for helicopters, navigation beacons, anti-submarine data processing equipment, and increases in contracts for the CF-104 programme. Payments to prime contractors in the United States amounted to \$51.8 million in 1961, as against \$58.7 million in the previous year.

Contracts placed in Britain were valued at \$5.0 million in 1961, down from \$11.7 million in 1960. The major new defence commitments in Britain were for ammunition components and 105mm shells. Payments to British prime contractors amounted to \$9.1 million in 1961, an increase of 5.8 per cent over 1960.

Contracting against DDP Votes and the Revolving Fund—During 1961, the Department placed \$16.0 million in contracts against certain Defence Production Votes that can be described as assisting Canadian defence industry. This was three and one-half times the value in 1960, when such contracts amounted to \$4.5 million. The major area of assistance in 1961, which involved contracts totalling \$13.8 million, was to sustain research and development capability in Canadian industry related to the needs of the Canada-United States development and production sharing programme. More details of this and other areas of departmental assistance to Canadian defence industry are contained in the Industry and Defence and the Defence Production and Development Sharing

sections of the Report. Expenditures on these areas of assistance to industry amounted to \$7.5 million in 1961, compared with \$5.0 million in the preceding year.

Revolving Fund contracts amounted to \$40.6 million in 1961, primarily to finance the production of five "swing-tail" CC-106 aircraft and to make funds available for initial production in connection with the Canada-United States F-104G mutual aid programme. Revolving Fund contracts amounted to \$1.3 million in 1960.

Contracting for all other sources—Contracts placed for all sources other than the Departments of National Defence and Defence Production totalled \$116.0 million in 1961, an increase of 12.8 per cent over the \$102.8 million in 1960. Of the amount recorded for 1961, \$97.5 million was placed for the United States Government, representing a 29.3 per cent increase over the previous year's total of \$75.4 million. The major new contracts or increasing commitments by the United States in 1961 were for aircraft engine spares, Caribou aircraft, 7.62mm cartridges, plotting tables, field magneto telephones, doppler navigation equipment, division components for area type communication system, installation of underwater cable system, depot level maintenance of certain Pinetree radar stations, transportation services for DEW Line re-supply, aircraft fuel and other petroleum products, nitroguanidine, full tracked carriers and development of a small gas turbine engine. Payments by the United States Government against these contracts amounted to \$92.2 million during 1961, an increase of 7.8 per cent over the value of \$85.5 million in 1960.

Contracts placed by the Department for the British Government totalled \$2.1 million in 1961, of which the largest amount was for the purchase of variable depth sonar. Contracts issued for other foreign governments amounted to just over \$1 million.

Contracting for other Canadian Government departments and agencies totalled \$15.4 million in 1961. Colombo Plan requirements accounted for \$9.9 million of this. A large increasing commitment was made in connection with the construction of a hydrographic and oceanographic survey vessel for the Department of Mines and Technical Surveys.

Defence Production and Development Sharing

CONTINUED stimulation by both Canadian and United States Governments during 1961 resulted in a 25 per cent increase, to a total of \$142.6 million, in the value of United States defence production and development sharing prime contracts and subcontracts received in Canada. The steady growth of United States defence sharing business in Canada during the past three years indicates that this programme has become an important part of Canada-United States joint defence and defence production arrangements.

Regular monitoring and direction of the programme was provided by a Committee of senior officials of both governments. This Committee included representatives from the Canadian Departments of Defence Production, National Defence, External Affairs and Finance, as well as from the United States Departments of Defense, Army, Navy and Air Force.

Co-ordination of development sharing projects supported by the Department's development fund was provided by an Inter-departmental Committee made up of representatives from the Departments of Defence Production and National Defence and Treasury Board staff.

The Department's Production Sharing Co-ordinating Office maintained close liaison with other Canadian Government departments and with appropriate authorities in the United States. The production branches of the Department began to introduce a greater amount of production sharing work into regular line operations with a view to improving liaison with industry. Liaison officers stationed at major United States centres and the Department's Washington Office were also actively concerned with the programme. Close liaison was continued with the Department of Trade and Commerce to ensure that opportunities provided by trade commissioners and trade shows in the United States were exploited.

During the year a continuing effort was made to refine procedural arrangements, such as those involved in United States duty regulations, security matters, and obtaining specifications. The Buy America Act was further liberalized in relation to Canadian supplies, and the source listing of Canadian firms with United States agencies was closely reviewed.

The provision of information on the programme to prime contractors and subcontractors, as well as to government procurement officers, was emphasized by both governments. A new edition of the Canadian Commodities Index, listing over 500 Canadian companies actively interested in defence production sharing, was issued during the year primarily for use within the United States. A steady demand continued for the handbook, "Canada-United States Defence Production Sharing",

issued in 1960, over 15,000 copies of which had been distributed to the end of 1961. Similar publications concerned with research and development were being prepared for distribution in 1962.

The United States Services issued further directives and instructions throughout the Services which placed Canadian industry on more equal terms with United States industry in defence contracting and subcontracting.

Working groups designed to provide closer liaison between this Department and the United States Air Force were established during the year, and the United States Navy named specific officers to act as contact points on production sharing in appropriate Bureaux. These arrangements are expected to prove beneficial in facilitating the early participation of Canadian industry in United States defence development and production requirements.

In some special cases where American contractors have been able to write off their preproduction and tooling costs under previous contracts, the Department provided financial assistance to Canadian firms bidding on United States contracts by absorbing part of their preproduction and tooling costs. Payments amounting to \$678,000 were made to Canadian firms in 1961 for this type of assistance. New contractual commitments totalled \$1,370,000, of which the larger amounts involved assistance for counter-mortar radar, 7.62mm cartridges, an electronic counter countermeasure device and circuit boards.

Assistance was also given to Canadian industry towards research and development projects of interest to the United States Services. Contracts amounting to \$13,844,000 were made in 1961 for this type of assistance, with expenditures totalling \$4,636,000. The major new commitments were in connection with the Caribou Mk.2 aircraft, the PT-6 turboshaft and turboprop engines, a 600 HP gas turbine engine, airborne doppler radar and the CL-91 high mobility light utility carrier.

All of these efforts resulted in significant increases in bid solicitation and submissions in the prime contract area. Solicitations rose from 2,693 in 1960 to 5,786 in 1961, and submissions rose from 957 to 1,799. Contracts placed by the United States Government with Canadian Commercial Corporation rose from 446 to 830 and were valued at \$70.4 million. In the subcontract area, solicitations fell from 2,719 in 1960 to 2,524 in 1961, and responses fell from 2,120 to 1,986. Subcontracts received by Canadian firms, however, rose from 882 to 1,111, valued at \$69.1 million. Other prime contracts received directly from the United States Government by industry and universities in Canada totalled \$3.1 million.

Canadian Co-operation in NATO on Research, Development and Production

THE Department continued to co-ordinate Canada's activities in connection with the research, development and production programme of the North Atlantic Treaty Organization. This programme endeavours to attain maximum efficiency in standardization and production of military requirements by member countries. The Department provided the Canadian representative on the NATO Armaments Committee, which administers the programme to achieve this aim.

Some projects, such as those involving aircraft, have made fairly rapid progress. The Canadian aircraft industry, along with those from other member countries, have submitted feasibility and design studies for medium range transport and strike reconnaissance aircraft in the vertical and short take-off and landing (V/STOL) class, from which those for common production and use by NATO countries will be selected.

Close liaison was maintained between this Department and the Department of National Defence and other Government agencies concerned with this programme. Canada has submitted for consideration by the NATO groups a number of projects in the fields of V/STOL aircraft, mobile radar, vehicle navigation equipment, sonar equipment, personnel carriers, anti-tank weapons, anti-personnel land mines, air-borne navigation aids, aircraft engines, and telephone terminal equipment.

This Department, the Department of National Defence and the National Research Council provided representation at meetings to review most of the projects and provided necessary information on the Canadian proposals. In addition, representation was provided at meetings of existing groups of experts by various Government agencies.

Defence Exports to Overseas Countries

Arising out of the increased activities within NATO, several countries have expressed directly their interest in Canadian defence equipment. Canadian industry was encouraged to participate in supplying the defence needs of European and other countries in such areas as aircraft, navigation aids and engine spares. To assist in this activity, an officer of the Department was posted to the Canadian Embassy in Paris.

Arrangements were made so that Canadian industry could obtain assistance from the Department in seeking opportunities to develop and produce defence equipments for other countries.

During 1961, Canadian firms reported that they had received \$42.0 million worth of prime contracts and subcontracts from NATO and other countries

(excluding the United States). Prime contracts accounted for \$24.9 million, of which the major items were Otter and Caribou aircraft for Ghana, flight simulators for a number of NATO countries that have adopted the F-104G aircraft, and engine spares and power flight controls for the Federal Republic of Germany. Subcontracts placed in Canada by overseas countries amounted to \$17.1 million, the largest being for position and homing indicators for the Federal Republic of Germany.

Industry and Defence

GOODS and services provided by contractors in Canada for the Canadian defence preparedness programme represented one and one-half per cent of this country's gross national product in 1961. This was approximately the same proportion as in the preceding year. Although the amount of goods and services provided, as measured by defence procurement and construction payments to Canadian contractors, increased by a small amount in 1961, its proportion to gross national product remained stable because of the further overall growth in the Canadian economy during the year.

Defence requirements represent an important source of activity for only a few industries in Canada. The aircraft industry is the largest of the Canadian industries primarily dependent on defence business. Production and employment in this industry were slightly higher in 1961 than in the preceding year. Employment in the shipbuilding industry was higher in the latter half of the year than in the same half of 1960. Increased shipyard activity on the six destroyer escorts contributed to this strengthening in the shipbuilding industry. Greater production of defence electronic equipment accounted for some of the steady rise in activity and employment in the electronics industry during the year. The armament industry felt the effect of decreased military requirements, and the Department endeavoured to place its contracts for armament equipment so as to sustain economic operations in key plants. Defence construction activity was up slightly over the preceding year.

The Department remained active in maintaining an adequate defence production base in Canada. An important factor in this area was the defence production and development sharing programme, with its emphasis on providing a greater degree of joint utilization of the defence production capabilities in Canada and the need for Canadian industry to maintain a high standard of engineering and technical competence for development purposes. Added to this was an increased emphasis on selling Canadian-produced military items to other countries. The assistance given to Canadian industry and the success achieved through these endeavours in 1961 are covered in other sections of this Report.

The Department increased its programme of establishing sources in Canada for component parts and materials essential to the production of modern military equipment. The object of this is to establish qualified sources of supply sufficiently in advance of requests from the Department of National Defence in order to ensure the maximum participation of Canadian firms in defence procurement, particularly in the electronics field. Because of the urgent nature of many military requirements, this advance qualification will make Canadian producers less dependent on foreign sources of supply. A further aim is to prove the capability of

producing a requirement at a competitive price as well as to required performance standards, thus enabling Canadian sources to meet both United States and Canadian demand. Almost \$500,000 was spent on this programme in 1961, and new commitments amounting to \$360,000 were made to establish qualified sources for the production of diffused silicon mesa transistors, metal-oxide-film resistors, thermionic switch tubes and microwave components, and to provide a hydrophone test facility.

A defence industrial applied research programme was established in 1961 to promote and strengthen the research capability of Canadian defence industry. Responsibility for the management of this new programme was assigned to the Defence Research Board. The Department of Defence Production is responsible for contracting under the programme and is directly interested in the selection of contractors and the establishment of appropriate contractual terms and conditions. The Department has co-operated with the Defence Research Board in selecting research objectives for this programme, and has advanced a number of proposals for consideration.

The Department continued to encourage private industry to invest in the capital equipment required for defence production, so that defence production capacity would be tied in directly with the general structure of Canadian industry. In a few cases, however, direct Government investment and financial incentives were necessary to ensure the capacity essential to defence requirements.

Government financed capital assistance to private industry involved the expenditure of \$915,000 in 1961, most of which was for the extension of a runway at the Cartierville, Que., airport and for assets required in the production of dosimeters and electronic equipment components. New approvals of capital assistance projects, amounting to \$206,000, involved assets for the production of electronic components and 155mm shot, and to equip a Central Electronics Components Inspection Laboratory. This Laboratory, located with Inspection Services of the Department of National Defence, is to provide certain defence manufacturers with a facility where they can have component parts tested at a nominal cost until they can establish their own testing capabilities. Title to all capital assistance assets remains with the Crown, and the contractor responsible for their use is held accountable for their proper maintenance.

Additional capital cost allowance for income tax purposes (accelerated depreciation) was granted to some contractors on their capital investment in defence production or production supporting assets. Interim certificates for accelerated depreciation were granted on an estimated \$1.6 million worth of capital assets in 1961. These assets were mainly required for the production of the CF-104 aircraft and for the production of airframe and aircraft engine components.

Rentals were paid by the custodian contractors where Crown owned assets were used for non-defence work. This enabled defence production equipment to be further integrated into the civilian sector of the Canadian economy. In all cases, the interest of the Crown in the future use of these assets for defence production purposes was protected and the rentals charged were such as to ensure a fair return to the Crown on the assets concerned.

Where it was not possible to keep necessary production facilities operating for either defence or civilian requirements, certain Crown assets were maintained to meet possible future requirements. In 1961, \$807,000 was spent on the care, maintenance and custody of such standby Crown owned defence production facilities and equipment.

Materials Supply

While the supply of Canadian prime metals and semi-fabricated materials was sufficient to meet Canadian defence, atomic energy and production sharing programmes, departmental assistance was constantly required to obtain satisfactory deliveries of components to keep programmes on schedule. The supply of certain other types of metallic and non-metallic materials being used in Canada's defence and related programmes was dependent on allocations under the United States Defense Materials System. New production from the expansion of existing plant facilities and the construction of new mills in the Canadian prime metal and basic materials fields continued to decrease this country's dependence on foreign sources for these materials.

Increasing demands to meet Canadian defence and atomic energy requirements for helium again depended upon supply from the United States. New gas fields in the Middle East that have recently been brought into production indicate a new source of supply to meet the demands of continental Europe.

Production of primary aluminum was reduced during the year due to decreased domestic and foreign demand. Canadian facilities producing mill forms, however, were kept at near capacity and departmental intervention was required to expedite urgent defence requirements. Lack of demand for forgings resulted in the closing down of a major proportion of a forging plant at Kingston, Ont. Production of primary copper and its many mill forms was adequate to meet world demand and no undue difficulties were encountered to meet defence requirements. The sole producer of magnesium in Canada increased its production capacity by 25 per cent during the year.

In view of information released by the International Tin Council that tin would be in short supply during the year, sales of tin were made from the Department's stockpile, which assisted in maintaining a continuing supply to Canadian consumers. The sales were handled for the Department by a private broker. Sales

were made at going market prices and at a rate that would not disrupt the normal market. This disposal action was taken with the approval of the major producing and consuming countries and on the understanding that sales would be made in a manner that would cause the least disruption to the economies of the producing countries.

An increasing number of Canadian defence and atomic energy contractors have found it advisable to take full advantage of United States priorities, allocations and special assistance provided to Canadian contractors under the United States Defense Production Act. They have, in general, obtained very satisfactory results even when competing for conventional type war support items against an accelerated United States defence programme.

Canada's major defence programmes were again included in the United States Master Urgency List, thus ensuring an equitable supply of strategic and critical materials to meet production schedules.

Emergency Supply Planning

DURING 1961, the Emergency Supply Planning Branch made significant progress with the preparations necessary to bring a War Supplies Agency into effective existence immediately on the outbreak of nuclear war, should one occur. This Agency would assume full control over all aspects of the production, distribution and pricing of supplies for both civil and military purposes, except certain aspects of the agricultural and fishing industries.

An interim organizational structure for the War Supplies Agency, designed to meet anticipated supply requirements during the first few weeks after nuclear attack, was developed and approved. Within the overall organization of the War Supplies Agency, there are national, regional, zonal and local components in conformity with the system of emergency government being developed by the Emergency Measures Organization. The staffing of the national component of the War Supplies Agency was completed by the selection, on a standby basis, of suitably qualified persons from various Government departments and agencies in Ottawa. The staffing of the ten regional components, also on a standby basis, neared completion, and arrangements were underway with the various provincial governments to draw on their personnel resources for this purpose, as well as on business and industry and the field staffs of various federal departments and agencies. A beginning was made on the organization of shadow zonal and local components of the War Supplies Agency.

To provide a basis on which the War Supplies Agency could make a post-attack assessment of surviving supply resources, the Emergency Supply Planning Branch initiated a research programme designed to produce in readily useable form comprehensive inventory data on major stocks of essential commodities and related production facilities normally available in this country. This long-term research programme has achieved some substantial results with respect to the collection and processing of data on stocks of food and petroleum products. Also, methods have been developed in co-operation with the Canadian Army and the Emergency Measures Organization for evaluating surviving resources after attack.

Various regulations and orders likely to be required by the War Supplies Agency in exercising effective control of supplies under conditions of nuclear war have been prepared in draft form. Considerable work was done on the development of an industrial preparedness programme.

The national and regional components of the War Supplies Agency took part in both of the TOCSIN exercises held during the year. In addition, a three-day conference of senior federal and provincial government officials occupying key

positions in each of the regional components of the War Supplies Agency was held early in December.

At the end of the year, the Branch had a regional officer in each province except Prince Edward Island and Newfoundland. A competition was in progress for the selection of a regional officer in Newfoundland.

Organization and Administration

THE basic organization of the Department remained unchanged during 1961. Personnel on strength increased from 1,513 at the end of 1960 to 1,538 at the end of 1961. Of the latter number, 1,212 were located in Ottawa, 238 were employed in offices elsewhere in Canada, and 88 were employed outside the country. Recruitment of field staff for the Emergency Supply Planning Branch accounted for most of the increase in staff during 1961. An increase also occurred in the staff of the Armament Branch, which was successful in obtaining qualified technical personnel.

Seventy-seven competitions were held to fill positions in the Department. There were 173 new appointments, 148 terminations, and 157 inter-branch transfers during the year.

An organization chart of the Department as at December 31, 1961, appears as Appendix A to this Report. The senior personnel at that date are listed in Appendix B, and the distribution of staff by units of the Department is shown in Appendix C.

Five Crown Corporations, whose work is closely allied with that of the Department, reported to Parliament through the Minister of Defence Production. A list of these companies and their principal officers is given in Appendix D. An account of the activities of these Crown agencies is contained in their respective Annual Reports.

Production and Purchasing Branches in Canada

The procurement of defence supplies requiring specialized production facilities remained the function of five production branches: Aircraft, Armament, Electronics, Machine Tool, and Shipbuilding. The General Purchasing Branch continued to be responsible for the supplies and services not normally requiring special production facilities. District purchasing offices in fourteen cities across Canada procured the supplies and services of a local or urgent nature required by defence establishments in the vicinity of the offices. The activities of these production and purchasing branches, including the district purchasing offices, are covered in the Production and Procurement section of this Report. A list of the district purchasing offices in Canada is contained in Appendix E.

Offices Located Outside Canada

The London (England) Office conducted all procurement activity of the Department in Britain and directed the activities of two sub-offices which handled procurement in continental Europe, and a small sub-office at Prestwick Airport, Scotland, to expedite the repair and overhaul of aircraft and equipment for the

Royal Canadian Air Force in Europe. The London Office procured from British Government agencies, such as Admiralty, Ministry of Aviation and the War Office, as well as being responsible for all the Department's commercial procurement in Britain. Procurement in France, chiefly through the Government of France, was carried out by the sub-office in Paris; and procurement in the Federal Republic of Germany, chiefly through the Government of that country, was handled by the sub-office in Koblenz.

The Washington Office continued to handle procurement from the United States Armed Services and, in some exceptional cases, from commercial firms in the United States. Practically all procurement from United States commercial sources was made directly by the appropriate production or purchasing branch in Ottawa. The Washington Office also maintained regular liaison with many United States Government agencies, handled Canadian participation in the United States priorities and expediting systems, and supplied a wide range of information to Canadian Government officials. This Office spent much time on the Department's production and development sharing activities, which are covered elsewhere in this Report. In this connection, it handled a large number of inquiries and arranged numerous meetings involving Canadian and United States Government officials, contractors and subcontractors. The Washington Office directed the activity of a sub-office at Wright-Patterson Air Force Base, Ohio, involving operations with the Air Materiel Command of the United States Air Force.

Production sharing liaison offices were located in New York City and Rome, N.Y., Bedford (near Boston), Mass., Philadelphia, Pa., Detroit, Mich., and Los Angeles, Calif.

The Department continued to be represented on the Canadian Delegation to the North Atlantic Council in Paris, France. The Department's representatives were responsible for liaison with other national delegations and with the NATO international staff, and for making the Canadian viewpoint known on defence production matters of common concern to several members of the Alliance. They represented Canada on the NATO Armaments Committee which, in turn, controls a wide variety of expert working groups; and during the first half of the year they performed a number of duties in committees of the NATO Council engaged in emergency supply planning.

An office was maintained in Bonn, Federal Republic of Germany, for the Canadian representative to the European Organization for Direction and Control of the F-104G programme. An officer of the Department was posted to the Canadian Embassy in Paris to assist Canadian industry to participate in European defence requirements.

The addresses of the Department's offices outside Canada are also shown in Appendix E.

Advisory and Service Branches

The Administration Branch was responsible for the Department's personnel and welfare services, organizational planning and systems improvement, training and development, office accommodation and equipment, central typing services, and all ancillary services connected with personnel administration.

Various methods improvement programmes were undertaken during the year, including a comprehensive organization and methods survey conducted by the Civil Service Commission of the typing and stenographic support units in all branches. Several types of integrated clerical support units adapted to the specific needs of individual purchasing branches were introduced. A complete records conversion programme was initiated in the Industrial Security Branch.

The Training and Development Division conducted specialized courses in management accounting, contract administration, industrial engineering, personnel management, critical path scheduling, conference and group leadership, as well as general courses in letter and report writing and orientation courses for various staff levels. Arrangements were made for members of the Department to participate in the United States Air Force School of Logistics, American Management Association seminars, and courses conducted by the Civil Service Commission. These courses were fundamental to the integrated personnel management programme in the Department.

The Personnel Division handled recruiting, placement, transfer, promotion, superannuation, pay, attendance and personnel counselling for the Department. Personnel records were put on a punched card machine system. An appraisal board programme for technical procurement officers was further developed and implemented during the year.

The intern procurement officer training programme entered its fourth year with the hiring of six graduate engineers. The first two classes in this programme, consisting of eight engineers, have moved into operating positions in the production branches and are carrying out full project officer responsibilities. Three officers were also engaged under the junior administrative officer programme.

The Comptroller's Branch provided the accounting service for the Department and for Canadian Commercial Corporation, a Crown company associated with the Department. Services on behalf of the Corporation included special financial and accounting administration as required. Complete bookkeeping records, based as far as possible on commercial practice, were kept of the transactions against the Department's Parliamentary appropriations and of all assets and liabilities for which responsibility lies with the Minister of Defence Production. These assets include Crown owned buildings and equipment in custody of private contractors or in warehouses. Their accounting involved physical identification in the field and

the maintenance of a full inventory record by description, quantity and value. Test physical counts of materials carried in stock at various locations were also made during the year.

Records were maintained of the transactions arising out of various uncleared accounts taken over from predecessor departments, and with respect to disbursements and deliveries on NATO account which were covered by funds transferred to this Department by the Department of National Defence. The Branch carried out the financial administration of all agreements involving the sale to contractors of Crown owned land, buildings and equipment. In addition, the Branch continued to provide the financial administration of the Defence Production Revolving Fund.

The Branch also maintained records of Department of National Defence equipment on loan to contractors through the Department of Defence Production, and contributed to the recording and administration work connected with the rental of Crown assets to contractors.

With respect to the Department, the Branch continued to submit to the Deputy Minister monthly statements of assets and liabilities, revenue and expenses, and reports thereon. Detailed expense statements were also issued each month to other senior officers of the Department. Similar statements and reports, on a quarterly basis, were submitted to the directors and responsible officers of Canadian Commercial Corporation. The Comptroller or his representatives attended various meetings with the Corporation directors and others during the year as required.

The financial position of the Department as at March 31, 1961, is shown in the Balance Sheet and related schedules given in Appendix G, duly certified and reported upon by the Auditor General.

The Economics and Statistics Branch provided the general economic and statistical services required by the Department. It undertook studies in these areas that would provide the Department with information on the effects of the defence procurement programme on various facets of the Canadian economy.

The large number of procurement requisitions received by the Department, contracts placed on behalf of the Department of National Defence and other requisitioning agencies, and payments made against these contracts were recorded and tabulated through the use of data processing equipment. Approximately 160,000 documents were processed and a further 300,000 pre-punched cards were tabulated in order to obtain the basic data for analyzing the Department's procurement activities and the defence procurement and production programme. Regular statistical reports on the Department's contracting activities and on expenditures related to this contracting were issued.

Certain departmental personnel records were maintained on punched cards and processed mechanically. The application of data processing techniques to delivery records of the Washington Office was developed and implemented.

Statistical reports measuring the progress of the Canada-United States defence production and development sharing programme were prepared regularly during the year. These reports involved periodic surveys of major defence contractors. A procedure was developed for obtaining information on all foreign content in defence contracts.

Projections of defence procurement expenditures were made to provide the Department with an estimate of future procurement activity and to assist the Department of National Defence in the preparation of its budgetary estimates. This required the co-ordination and analysis of expenditure data from major defence contractors and close liaison with production officers.

The Branch maintained liaison with other economic research and statistical units, both in and outside the Government Service, in order to obtain information necessary for economic appraisals of the defence programme, and to provide them with data on the defence sector of the Canadian economy. Various firms and organizations were supplied with material relating to the Department's procurement activities.

Lists of unclassified defence contracts valued at \$10,000 and over awarded by the Department to firms in Canada were compiled and issued semi-monthly in the form of a press release.

The Financial Adviser's Branch acted in an advisory capacity with respect to the development and application of financial policies related to defence contracts.

All contract proposals involving commitments in excess of \$10,000 were reviewed to ensure that the principal terms conform to departmental policies and that the procurement proposed properly reflects the requirements of the requisitioning agency. Special consideration was given to contract proposals for large commitments and to cases involving profit incentives. Submissions to Treasury Board were prepared and liaison with Treasury Board staff was maintained.

The Branch reviewed reports prepared by the Audit Services Division of the Comptroller of the Treasury following the audit of contracts, and co-operated with that Division and the procurement branches of the Department to resolve cost and profit problems with contractors arising from such audits.

Studies undertaken during the year included limitations on profit incentives in target contracts, overhead content in negotiated firm price contracts, use of hourly rate contracts, cost control for research and development contracts, and allowable rates for out-of-plant technical services. The Branch also participated in a review of the liability insurance requirements for shipbuilding repair and overhaul contracts and the warranty provisions used in departmental contracts. The Branch furnished information regarding contractor liability for sales tax, customs duty and excise taxes, and provided advisory services with respect to problems arising from con-

tractual negotiations. Consideration was also given to the financial features of all formal agreements, including defence production sharing agreements.

Applications from defence contractors for capital assistance or additional capital cost allowance (accelerated depreciation) were reviewed in the light of departmental policy. Declarations being made to Crown Assets Disposal Corporation covering surplus capital assistance assets, tooling, and production material were screened for approval. Rentals were assessed in cases where contractors made commercial use of the Crown owned assets. Where contracts were cancelled or terminated because of revised requirements, negotiations were conducted with the contractors concerned to achieve a satisfactory settlement.

The Branch co-ordinated the preparation of the Department's estimates requirements, including the appropriations required by Crown companies responsible to Parliament through the Minister of Defence Production. The annual capital and operating budget submissions required from these companies under The Financial Administration Act were reviewed, as were their interim financial statements. The Branch also administered grants made in lieu of taxes to municipalities in which Crown owned defence plants operated by private contractors are situated.

The Legal Branch advised on legal implications of the policies and procedures of the Department and the legal steps required to protect the Department in its transactions. In so doing, the Branch provided general legal services to the Department, especially to the production branches and the General Purchasing Branch. The largest portion of the day-to-day work concerned contract law, and included advice regarding the terms of contracts and the preparation of formal agreements between the Department and private contractors.

Of special importance was the legal work required by the large purchase in Canada of F-104G aircraft by the Government of the United States for mutual aid to NATO countries, part of the cost of which is borne by Canada. Legal work was commenced on the production contracts resulting from this new programme and on the several licensing and royalty agreements which have to be negotiated with corporations in Canada and the United States for associated technical data.

In connection with the increasing number of contracts between the Department and Canadian industry covering financial assistance by the Crown in the establishment of productive capacity and in defence development programmes, legal advice was provided regarding the terms and conditions under which such assistance was given and individual contracts were prepared.

Some of the Department's submissions to the Governor in Council and Treasury Board were prepared by the Legal Branch. Also, the Branch co-operated with the Department of Justice in regard to litigation resulting from claims by or against the Department.

One of the principal continuing services provided by the Branch was the drafting of contracts between the Crown and contractors in Canada, following negotiation of the contract terms by officers of the Department, for the production of various defence supplies for the Canadian Armed Services and for the United States military departments. In many cases solicitors of the Branch advised the purchasing, production and technical officers of the Department during their negotiations with representatives of industry. It was often necessary for the solicitors to confer with lawyers representing industry in settling the legal content of the contracts.

The Branch gave legal opinions on the interpretation of contracts and statutes, termination of contracts, claims by and against the Crown, and on such diverse matters as assignments of contracts, title, risk, insurance, subcontracting, bankruptcy, patents, inventions, royalties, taxes, customs duties and land matters.

The Legal Branch handled all legal work of Canadian Commercial Corporation, a Crown company which reports to Parliament through the Minister of Defence Production.

The Secretary's Branch administered the Department's Communications, Printing and Stationery, Central Registry, and Service Divisions. The Secretary, as the Department's official signing officer, endorsed formal contracts with suppliers and conducted departmental correspondence. The Secretary also acted as co-ordinator for the activities of the Royal Commission on Government Organization within the Department.

The Secretary's Branch supplied several continuing departmental committees with secretarial services, and officers of the Branch represented the Department on various inter-departmental committees.

The Communications Division maintained a teletype service between Ottawa and the Department's offices in Montreal, Toronto and Washington. This service was available to other Government agencies on a pro rata basis and was extensively used by them. A teletype link was also maintained by the Department's Head Office and the Department of National Defence units throughout Canada. The "Telex" system, providing direct exchange of messages with other subscribers, was extended by the addition of new subscribers in Canada and the United States. Approximately 125,000 telegraphic and teletype messages were cleared by the Division during the year under review.

The Service Division provided the procurement branches with lists of firms capable of producing required items; reproduced invitations to tender, contracts and amendments to contracts; distributed copies of these documents to appropriate recipients; received, guarded and opened all tenders received at Head Office; and was responsible for replying to inquiries regarding the award of contracts.

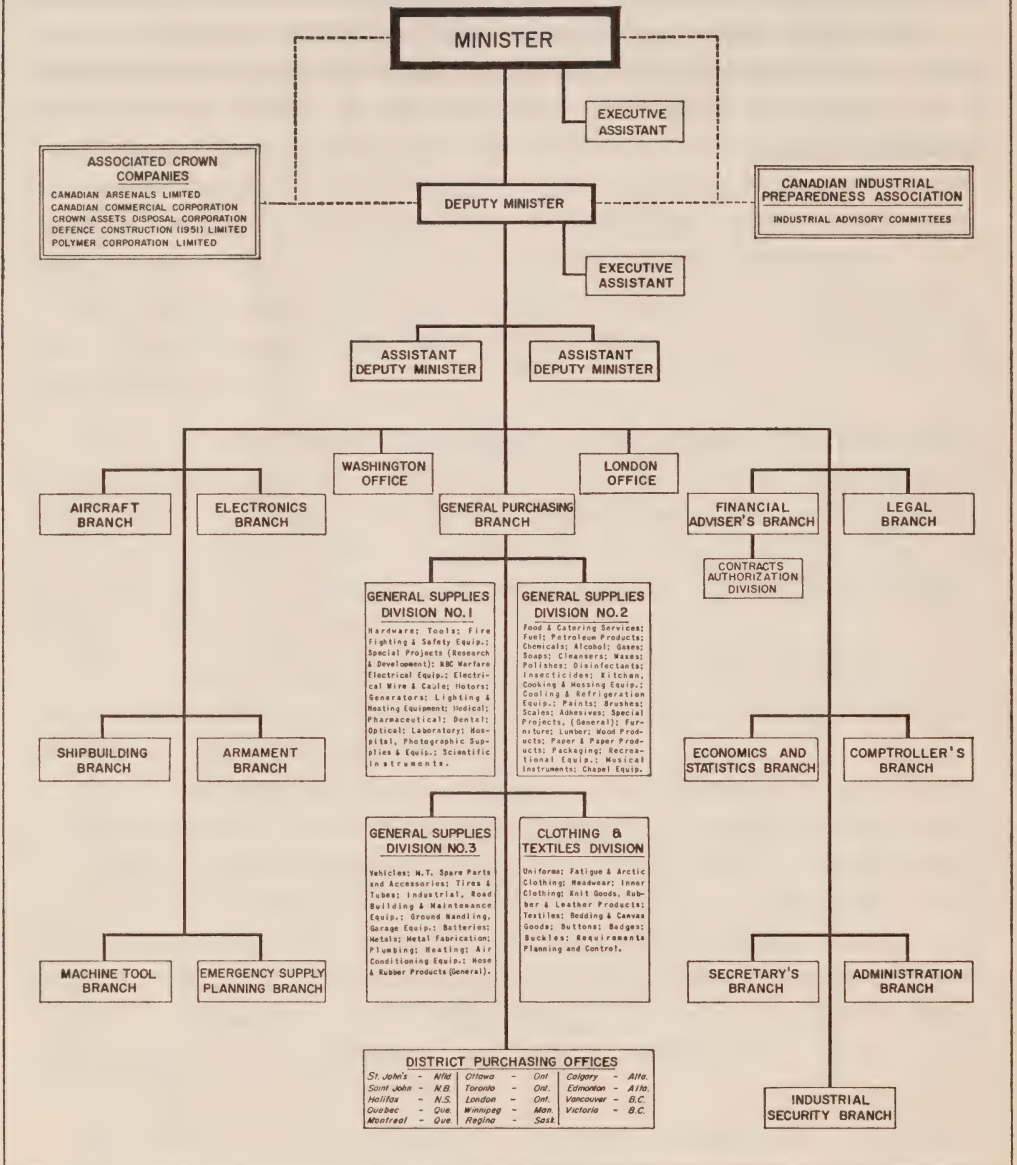
The Printing and Stationery Division purchased the stationery and other office supplies required by the Department, supervised forms control and served as a liaison between this Department and the Department of Public Printing and Stationery in the procurement of all necessary printed material. The Division also co-operated in the production of several publications required in connection with the Canada-United States defence production and development sharing programme.

The Central Registry was responsible for the creation, movement and protection of the approximately 175,000 files required in the Department's operations. It also operated the Department's mail room and its internal distribution and messenger service.

Appendix A

DEPARTMENT of DEFENCE PRODUCTION

ORGANIZATION as at DEC. 31, 1961



Appendix B

Senior Personnel of the Department

as at December 31, 1961

Minister

The Honourable Raymond O'Hurley, P.C., M.P.

Executive Assistant to the Minister A. Trudel

Deputy Minister

D. A. Golden

Assistant Deputy Minister G. W. Hunter
Assistant Deputy Minister W. H. Huck
A/Executive Assistant to the Deputy Minister W. J. Mulock

Production Branches

Director, Aircraft Branch D. L. Thompson
 Deputy Director, Aircraft Branch A. D. Belyea
Director, Armament Branch C. L. Muir
Director, Electronics Branch D. B. Mundy
 Deputy Director, Electronics Branch S. I. Comach
 Deputy Director, Electronics Branch T. C. Jones
Director, Machine Tool Branch R. Mosher
Director, Shipbuilding Branch J. C. Rutledge

General Purchasing Branch

Director D. M. Erskine
 Deputy Director R. C. D. Laughton

Emergency Supply Planning Branch

Director J. C. Morrison

Advisory and Service Branches

Financial Adviser R. M. Keith
 Deputy Financial Adviser N. R. MacLean
 Director, Contracts Authorization Division J. D. C. Mahaffy
Comptroller G. F. Wevill
 Deputy Comptroller T. E. Brown
Departmental Secretary J. J. Tevlin
Director, Administration Branch H. R. Kotlarksy
Director, Economics and Statistics Branch W. J. W. V. Johnston
Director, Industrial Security Branch L. C. Cragg
Director, Legal Branch F. F. Waddell
 Deputy Director, Legal Branch C. S. Stevenson
Director, London (England) Office R. D. Roe
Director, Washington Office J. A. Teeter

Appendix C

Distribution of Departmental Staff

as at December 31, 1961

	Number of Employees
Minister's Office	13
Deputy Minister's Office	31
Aircraft Branch	161
Armament Branch	65
Electronics Branch	186
Machine Tool Branch	26
Shipbuilding Branch	103
General Purchasing Branch—	
Head Office	180
District Purchasing Offices	169
Emergency Supply Planning Branch	34
Administration Branch	88
Comptroller's Branch	85
Economics and Statistics Branch	37
Financial Adviser's Branch	55
Legal Branch	11
Secretary's Branch	185
Industrial Security Branch	31
Offices in the United States and Europe, and NATO Delegation, Paris	78
	<hr/>
Total	1,538
	<hr/>

Appendix D

Crown Companies Associated with the Department of Defence Production

as at December 31, 1961

Canadian Arsenals Limited

Vice-President	N. P. Petersen
General Manager	J. H. Berry
Secretary-Treasurer	D. C. Cullen

Canadian Commercial Corporation

President	M. H. Lamoureux
Secretary and Legal Adviser	F. F. Waddell
Comptroller	G. F. Wevill

Crown Assets Disposal Corporation

President and General Manager	Louis Richard
Secretary and Legal Counsel	M. J. Ellsworth

Defence Construction (1951) Limited

President and General Manager	R. G. Johnson
Secretary	J. D. Jennison
Treasurer	N. Tokaryk

Polymer Corporation Limited

Chairman of the Board	E. J. Brunning
President and Managing Director	E. R. Rowzee
Vice-President, Operations	L. D. Dougan
Vice-President, Finance	S. Wilk
Vice-President, Marketing	Roger E. Hatch
Vice-President, Research and Development	Dr. E. J. Buckler
Secretary and Chief Legal Officer	W. J. Dyke

Appendix E

District Purchasing Offices and Offices Located Outside Canada

Addresses as at December 31, 1961

District Purchasing Offices

ST. JOHN'S, NFLD. ¹	Buckmaster's Field, Building No. 40 (P.O. Box 487)
HALIFAX, N.S.	Room 527, Federal Building, Bedford Row (P.O. Box 1655)
SAINT JOHN, N.B.	Room 408, Sadim Building, Canterbury & Duke Streets
QUEBEC, P.Q.	126 St. Peter Street, (P.O. Box 70—Station "B")
MONTREAL, P.Q.	685 Cathcart Street
OTTAWA, ONT.	953 Somerset Street West
TORONTO, ONT.	Mackenzie Building, 36 Adelaide Street East
LONDON, ONT.	388 Dundas Street
WINNIPEG, MAN.	Room 326 E, 344 Edmonton Street
REGINA, SASK.	302, New Post Office Building
CALGARY, ALTA.	Room 725, Public Building, 8th Avenue and 1st Street East
EDMONTON, ALTA.	906 Federal Public Building, 99th Ave. & 107th Street
VANCOUVER, B.C.	Room 407, Federal Building, 325 Granville Street
VICTORIA, B.C.	Room 308, Canada Customs House, 816 Government Street

Offices Located Outside Canada

WASHINGTON, U.S.A.	Canadian Department of Defence Production, 2450 Massachusetts Ave., (P.O. Box 4897, Cleveland Park Station) WASHINGTON 8, D.C., U.S.A.
Sub-Office	MCL DDP Wright-Patterson Air Force Base, OHIO, U.S.A.

¹ The address of the St. John's, Nfld., district purchasing office was changed in January, 1962, to:
Room 401, Main Post Office Building,
Water Street
(P.O. Box 487)

PRODUCTION SHARING

LIAISON OFFICES

Canadian Department of Trade and Commerce,
c/o Canadian Consulate General,
680 Fifth Ave.,
NEW YORK 19, N.Y., U.S.A.

Canadian Department of Defence Production,
ROP/DDP,
Rome Air Materiel Area,
Griffiss Air Force Base,
ROME, N.Y., U.S.A.

Canadian Department of Defence Production,
(Boston),
AMC/ESC/LEX,
L. G. Hanscom Field,
BEDFORD, Mass., U.S.A.

Canadian Department of Defence Production,
c/o U.S. Army Signal Supply Agency,
225 South 18th Street,
PHILADELPHIA 3, Pa., U.S.A.

Canadian Department of Defence Production,
c/o U.S. Army Ordnance District,
1580 East Grand Blvd.,
DETROIT 11, Mich., U.S.A.

Canadian Department of Defence Production,
Los Angeles Procurement District,
1206 South Maple Avenue, (Room 546),
LOS ANGELES 15, Calif., U.S.A.

LONDON, ENGLAND

Canadian Department of Defence Production,
1 Grosvenor Square,
LONDON W. 1, England

Sub-Offices

Canadian Department of Defence Production,
c/o Canadian Embassy,
35 avenue Montaigne,
PARIS VIII^e, France

Canadian Department of Defence Production,
Ehemaliges Gerichtsgebäude,
KOBLENZ-EHRENBREITSTEIN,
Hofstrasse 272,
Federal Republic of Germany

Canadian Department of Defence Production,
c/o Scottish Aviation Limited,
PRESTWICK AIRPORT,
Ayrshire, Scotland

OFFICE OF DDP REPRESENTATIVE TO THE NORTH ATLANTIC COUNCIL

OTAN-NATO,
Place du Maréchal de Lattre de Tassigny,
PARIS XVI^e, France

DEFENCE PRODUCTION

ATTACHÉ c/o Canadian Embassy,
35 avenue Montaigne,
PARIS VIII^e, France

OFFICE OF CANADIAN
REPRESENTATIVE TO
THE EUROPEAN
ORGANIZATION FOR
DIRECTION AND
CONTROL F-104G

c/o Canadian Embassy,
Zitelmannstrasse 22,
BONN, Federal Republic of Germany

Appendix F

Statistics of Defence Contracts and Expenditures

The statistical tables in this appendix illustrate, in terms of the net value of contracts placed and the value of expenditures, the magnitude of various sectors of the Canadian defence procurement and construction programme during the calendar years 1959, 1960 and 1961.

The tables are grouped in pairs, with the first "a" containing data on the net value of contracts placed and the second "b" containing the value of expenditures against these contracts and against similar contracts placed in earlier years.

Tables 1-a and 1-b to Tables 4-a and 4-b contain statistics related to defence contracting by the Department of Defence Production and Defence Construction (1951) Limited on behalf of the Department of National Defence. Payments against these contracts are made from funds appropriated by Parliament for the Department of National Defence.

Tables 5-a and 5-b relate to certain activities in support of Canadian defence industry that are paid for from Defence Production Parliamentary votes.

Tables 6-a and 6-b provide data relating to prime defence contracts placed in Canada by the United States Government through Canadian Government agencies such as Canadian Commercial Corporation. The Department of Defence Production places most of the contracts for Canadian Commercial Corporation.

The net value of contracts placed, as shown in these tables, includes the value of amendments which increased or decreased commitments under existing contracts, as well as the value of new contracts.

Some of the figures for 1959 and 1960 have been revised since they were published in the preceding issue of the Annual Report of the Department. Also, the totals at the bottom of the columns do not always equal the sum of the programme values shown because of rounding the figures to the nearest thousand dollars.

Definitions of the Defence Programmes

The general concept involved in this defence programme classification is that of relating all procurement, as far as possible, to a readily identifiable military end-item, such as an aircraft, a ship, an electronic device, a gun, a type of ammunition, an item of clothing, etc. Thus a particular programme includes, in addition to the end-item, those components or parts that become an integral part of the end-item, as well as associated services such as design and development, installation, maintenance, and repair and overhaul.

AIRCRAFT: This programme includes complete aircraft and items to be physically incorporated in complete aircraft, such as airframes, engines, propellers, navigational and flight instruments, electrical systems and their components. Government-furnished aircraft equipment and the repair and overhaul of aircraft are also included. Excluded are accessories such as armament and communication equipment, photographic equipment, training devices and ground equipment.

ARMAMENT: This programme includes weapons such as small arms, guns, howitzers, and rocket launchers and their components; light, medium, and heavy ammunition of all types, including mines, depth charges, rockets, and torpedoes; and explosives and certain defence chemicals. Electronic fire controls are not included.

ELECTRONICS AND COMMUNICATION EQUIPMENT: Electronics and communication equipment of all types are in this programme, including telephone, telegraph, radio and radar equipment. Underwater sound equipment and fire control equipment are also included. Development, maintenance, management and transportation services associated with the procurement of electronics and communication equipment are in this programme.

SHIPS: This programme includes escort vessels, minesweepers, aircraft carriers, and other floating equipment, and ship components such as hulls and superstructures, propulsion machinery, boilers, condensers, heating and electrical systems. Reconversion, refit and repair of ships are also included. Armament and electronic gear are excluded.

TANK-AUTOMOTIVE: Included in this programme are tanks and vehicles of both armoured and non-armoured types. Cars, trucks, and buses and their components, such as tires and tubes, are included. Excluded are armament and electronic equipment.

FUELS AND LUBRICANTS: This programme includes petroleum, gas, coal and coke, and their products, principally aviation turbine fuel and gasoline, motor vehicle gasoline, and heating fuels.

CLOTHING AND EQUIPAGE: All items of personal clothing, including footwear, and of personal equipment, such as mess kits and steel helmets, are in this programme.

CONSTRUCTION: This programme includes all construction contracts for building structures, runways, etc., as well as for consultant services, repairs and maintenance. Most of these contracts are placed by Defence Construction (1951) Limited.

**Total Contracts Placed for DND
and Related Expenditures**

Table 1-a.—Net Value of Total Canadian Government Defence Contracts Placed by the Department of Defence Production and Defence Construction (1951) Limited on behalf of the Department of National Defence

Programme	1959	1960	1961
	\$000	\$000	\$000
Aircraft	218,225	363,210	113,194
Armament	19,049	19,703	11,311
Electronics and communication equipment	82,300	133,617	122,593
Ships	25,989	84,657	26,585
Tank-automotive	7,893	6,947	10,981
Fuels and lubricants	57,768	50,496	48,972
Clothing and equipage	18,808	6,284	11,897
Construction	67,141	51,571	90,671
Other	94,383	87,800	92,569
Total	591,556	804,286	528,773

Table 1-b.—Value of Expenditures on Canadian Government Defence Contracts Placed by the Department of Defence Production and Defence Construction (1951) Limited on behalf of the Department of National Defence

Programme	1959	1960	1961
	\$000	\$000	\$000
Aircraft	264,209	266,736	222,485
Armament	45,893	26,035	22,323
Electronics and communication equipment	99,986	87,894	123,838
Ships	35,056	31,203	45,978
Tank-automotive	7,574	8,572	8,411
Fuels and lubricants	40,444	39,007	38,048
Clothing and equipage	20,639	4,123	7,103
Construction	67,723	64,193	67,106
Other	91,918	92,830	87,242
Total	673,441	620,592	622,535

Appendix F—Continued

**Contracts Placed for DND in Canada
and Related Expenditures**

Table 2-a.—Net Value of Canadian Government Defence Contracts Placed in Canada by the Department of Defence Production and Defence Construction (1951) Limited on behalf of the Department of National Defence

Programme	1959	1960	1961
	\$000	\$000	\$000
Aircraft	185,891	326,428	110,265
Armament	13,035	13,985	8,134
Electronics and communication equipment	80,373	99,301	110,513
Ships	25,337	83,718	26,273
Tank-automotive	7,912	7,198	10,227
Fuels and lubricants	57,453	50,205	48,579
Clothing and equipage	19,229	6,227	11,772
Construction	66,298	50,666	89,814
Other	88,532	81,302	87,054
Total	544,059	719,031	502,632

Table 2-b.—Value of Expenditures on Canadian Government Defence Contracts Placed in Canada by the Department of Defence Production and Defence Construction (1951) Limited on behalf of the Department of National Defence

Programme	1959	1960	1961
	\$000	\$000	\$000
Aircraft	248,221	225,417	194,036
Armament	41,178	21,174	16,945
Electronics and communication equipment	83,264	73,307	101,452
Ships	34,089	29,632	44,835
Tank-automotive	6,946	7,829	7,590
Fuels and lubricants	40,208	38,759	37,695
Clothing and equipage	20,562	4,082	7,049
Construction	66,277	63,374	65,984
Other	87,258	86,734	81,609
Total	628,004	550,309	557,195

Appendix F—Continued

**Contracts Placed for DND in the United States
and Related Expenditures**

Table 3-a.—Net Value of Canadian Government Defence Contracts Placed in the United States by the Department of Defence Production and Defence Construction (1951) Limited on behalf of the Department of National Defence

Programme	1959	1960	1961
	\$000	\$000	\$000
Aircraft	26,097	31,533	1,861
Armament	1,113	1,447	2,137
Electronics and communication equipment	294	34,023	9,729
Ships	481	349	892
Other	2,262	3,065	2,128
Total	30,247	70,417	16,747

Table 3-b.—Value of Expenditures on Canadian Government Defence Contracts Placed in the United States by the Department of Defence Production and Defence Construction (1951) Limited on behalf of the Department of National Defence

Programme	1959	1960	1961
	\$000	\$000	\$000
Aircraft	10,412	37,025	25,325
Armament	2,610	3,019	2,456
Electronics and communication equipment	14,734	13,472	20,106
Ships	780	1,339	763
Other	2,736	3,863	3,193
Total	31,272	58,717	51,842

Appendix F—Continued

**Contracts Placed for DND in Britain
and Related Expenditures**

Table 4-a.—Net Value of Canadian Government Defence Contracts Placed in Britain by the Department of Defence Production and Defence Construction (1951) Limited on behalf of the Department of National Defence

Programme	1959	1960	1961
	\$000	\$000	\$000
Aircraft	6,178	5,187	940
Armament	4,828	4,224	1,014
Electronics and communication equipment	1,514	156	1,510
Ships	172	590	319
Tank-automotive	130	467	363
Other	1,598	1,063	876
Total	14,420	11,688	5,022

Table 4-b.—Value of Expenditures on Canadian Government Defence Contracts Placed in Britain by the Department of Defence Production and Defence Construction (1951) Limited on behalf of the Department of National Defence

Programme	1959	1960	1961
	\$000	\$000	\$000
Aircraft	5,145	4,265	2,988
Armament	2,032	1,796	2,896
Electronics and communication equipment	1,870	982	1,439
Ships	187	232	380
Tank-automotive	416	436	403
Other	1,155	878	984
Total	10,805	8,589	9,090

Appendix F—Continued

Contracts by DDP to Assist Canadian Defence Industry and Related Expenditures

Table 5-a.—Net Value of Contracts Placed by the Department of Defence Production for Care, Maintenance and Custody, Establishment of Production Capacity, Source Establishment for Components, and Sustaining Technological Capability, and Value of Approvals for Capital Assistance

Category	1959	1960	1961
	\$000	\$000	\$000
Care, maintenance and custody of Crown owned standby defence assets	162	1,030	196
Capital assistance approvals	2,416	248	206
Establishment of competitive production capacity through absorbing certain preproduction and tooling costs	856	307	1,370
Establishment of qualified sources for the production of component parts and materials	356	512	360
To sustain research and development capability in Canadian industry in order to assist the Canada-United States development and production sharing programme .....	.....	2,425	13,844
Total	3,790	4,522	15,976

Table 5-b.—Value of Expenditures by the Department of Defence Production for Care, Maintenance and Custody, Capital Assistance, Establishment of Production Capacity, Source Establishment for Components, and Sustaining Technological Capability

Category	1959	1960	1961
	\$000	\$000	\$000
Care, maintenance and custody of Crown owned standby defence assets	216	570	807
Capital assistance	695	1,456	915
Establishment of competitive production capacity through absorbing certain preproduction and tooling costs	454	630	678
Establishment of qualified sources for the production of component parts and materials	171	268	499
To sustain research and development capability in Canadian industry in order to assist the Canada-United States development and production sharing programme .....	.....	2,033	4,636
Total	1,536	4,956	7,535

Appendix F—*Concluded*

United States Prime Defence Contracts Placed in Canada and Related Expenditures

Table 6-a.—Net Value of United States Government Defence Contracts Placed in Canada through the Canadian Commercial Corporation and Defence Construction (1951) Limited

Programme	1959	1960	1961
	\$000	\$000	\$000
Aircraft	20,543	42,764	32,675
Armament	1,141	1,097	5,781
Electronics and communication equipment	35,804	14,752	32,423
Fuels and lubricants	4,949	5,201	8,615
Construction	12,025	9,995	15,067
Other	772	1,549	2,983
Total	75,234	75,359	97,544

Table 6-b.—Value of Expenditures by the United States Government on Defence Contracts Placed in Canada through the Canadian Commercial Corporation and Defence Construction (1951) Limited

Programme	1959	1960	1961
	\$000	\$000	\$000
Aircraft	27,661	25,638	37,269
Armament	1,870	320	2,788
Electronics and communication equipment	19,491	38,238	34,208
Fuels and lubricants	1,330	2,916	2,873
Construction	22,387	17,310	13,044
Other	526	1,103	2,008
Total	73,265	85,525	92,190

Appendix G

Report to the Minister on the Audit of the Accounts of the Department

for the year ended March 31, 1961

OTTAWA, October 27, 1961.

The Honourable Raymond O'Hurley,
Minister of Defence Production,
Ottawa, Canada.

SIR,

An examination having been made of the accounts maintained and the financial statements prepared by the Department of Defence Production for the year ended March 31, 1961, I now report that in my opinion,

- (a) proper books of account have been kept by the Department;
- (b) the financial statements of the Department
 - (i) were prepared on a basis consistent with that of the preceding year and are in agreement with the books of account;
 - (ii) in the case of the Balance Sheet, give a true and fair view of the state of the Department's affairs as at the end of the financial year;
 - (iii) in the cases of the Summary of Transactions in Equity Account (with supporting statements of Expenditure and Receipts) and the Summary of Transactions in Surplus Arising from Trading Operations, give a true and fair view of the operations of the Department for the financial year; and
- (c) the transactions of the Department that have come under my notice have been within the powers of the Department under the Defence Production Act and any other Act applicable to the Department.

In accordance with established governmental practice, the Crown owned capital assets for which the Department is accountable are carried on the Balance Sheet at cost, without showing any deduction with respect to depreciation.

Yours faithfully,

A. M. HENDERSON,
Auditor General.

Balance Sheet as at March 31, 1961

60

REVOLVING FUND

Accounts receivable	\$ 1,943,331	Accounts payable	\$ 1,320,923
Progress payments to suppliers	218,769	Progress payments from customers	2,404,664
Working capital advances	6,015,515	Equity of Government of Canada—	
Inventories—Strategic materials, etc., at cost	15,112,168	Revolving Fund, as provided by Defence	
		Production Act, section 16 (authorized	
		\$100,000,000), net expenditure	\$15,650,637
		Inventory taken over by Department at	
		inception	3,728,584
		Surplus arising from trading operations,	
		Schedule 2	184,975
			<hr/>
			19,564,196
			<hr/>
			\$23,289,783
			<hr/>

In addition to the assets list above, the Department has recorded in its books expenditure in the amount of \$253,080,605 for production tooling, dies and jigs, title to which is vested in the Crown.

Approved on behalf of the Department.

D. A. GOLDEN,
Deputy Minister.

A. M. HENDERSON,
Auditor General.

Certified in accordance with my report dated October 27, 1961, to the Minister of Defence Production.

Summary of Transactions in Equity of Government of Canada Account

for the year ended March 31, 1961

Balance brought forward April 1, 1960	\$233,648,080	
<i>Additions:</i>		
Assets acquired from appropriations	1,234,377	
Transfer of assets from other departments and Crown agencies	6,216,552	
Increase in working capital advance to the Canadian Commercial Corporation (\$2,000,000, less \$1,000,000 refunded per Schedule 1 (b)	1,000,000	
	<hr/>	\$242,099,009
<i>Reductions:</i>		
Receipts from sales, etc., Schedule 1 (b)	4,045,680	
Decrease in fixed assets in custody of Canadian Arsenal Ltd., as shown by the balance sheet of the company at March 31, 1961	1,185,246	
Transfer of surplus assets to Crown Assets Disposal Corporation	1,312,653	
Transfer of assets to other departments and Crown agencies	425,906	
Depreciation and other allowances on sales of buildings and equipment	182,400	
Assets written off due to termination of contracts, dismantling, etc.	105,915	
Accounts receivable written off as authorized by Parliamentary Vote 681	9,439	
	<hr/>	7,267,239
Balance at March 31, 1961		<hr/> <hr/> \$234,831,770

Statement of Expenditure

for the year ended March 31, 1961

Vote			
66	Departmental administration		
and	Salaries	\$ 7,632,651	
121	Living allowances	120,538	
	Travelling expenses	251,980	
	Office stationery, supplies and equipment	253,904	
	Telephones and telegrams	180,486	
	Professional and special services	120,478	
	Postage	58,540	
	Freight, express and cartage	13,288	
	Rental of office accommodation	4,590	
	Publication of departmental report and other material	857	
	Sundries	14,344	
		<hr/>	\$ 8,651,656
67	Care, maintenance and custody of standby		
and	defence plants, buildings, machine tools		
508	and production tooling		662,643
68	Capital assistance		
	Capital account—		
	Construction, improvements and acquisition of land	1,116,751	
	Equipment	22,174	
	Establishment of production capacity	45,342	
	Income account—		
	Establishment of production capacity	341,680	
		<hr/>	1,525,947
69	Grants to municipalities in lieu of taxes		117,998
70	Establishment of qualified sources for production of component parts and materials		
	Capital account	82,197	
	Income account	392,288	
		<hr/>	474,485
71	Sustainment of technological capability in Canadian industry		2,907,269

72	Defence Construction (1951) Limited—		
	Administration		\$ 3,030,414
	Canadian Arsenals Limited—		
73 and			
509	Administration and operation		2,849,120
74	Construction and improvements	\$ 39,531	
74	Equipment	197,634	
		<hr/>	237,165
Statutory			
	Minister of Defence Production—		
	Salary	15,000	
	Motor car allowance	2,000	
		<hr/>	17,000
			<hr/>
	Total expenditure		<u><u>\$20,473,697</u></u>

Statement of Receipts

for the year ended March 31, 1961

Receipts on Income Account—

Sales of surplus Crown assets	\$ 8,118,849	
Return on investments	3,980,323	
Rentals of buildings and equipment	400,705	
Refunds of previous years' expenditure	24,533	
Miscellaneous	7,833	
	<hr/>	\$12,532,243

Receipts on Capital Account, per Schedule 1—

Sale of plant and equipment by the Department	4,005,127	
Repayment of debentures	21,801	
Recoveries of advances and accounts receivable	18,752	
	<hr/>	
	4,045,680	
Repayment of working capital advance	1,000,000	
	<hr/>	5,045,680
		<hr/>
		\$17,577,923
		<hr/> <hr/>

Summary of Transactions in Surplus Arising from Trading Operations, Revolving Fund

for the year ended March 31, 1961

Balance brought forward April 1, 1960	\$ 238,781
---	------------

Additions:

Sales, less cost of materials sold—

Cloth, Sales	\$ 84,758	
Cloth, Cost of Sales	71,088	
	<hr/>	13,670
Strategic materials, Sales	40,278	
Strategic materials, Cost of Sales	40,278	
	<hr/>
Shipbuilding components, Sales	1,530,166	
Shipbuilding components, Cost of Sales	1,530,166	
	<hr/>
Aircraft components, Sales	91,450	
Aircraft components, Cost of Sales	91,450	
	<hr/>
Ordnance, Munitions, etc., Sales	8,854,145	
Ordnance, Munitions, etc., Cost of Sales	8,854,145	
	<hr/>
		<hr/> 252,451

Reductions:

Warehousing and other expenses—Cloth

Salaries and wages	11,733	
Rent	44,389	
Sundries	3,714	
	<hr/>	
	59,836	
Warehousing expenses—Strategic materials	7,640	
	<hr/>	67,476

Balance at March 31, 1961	<hr/> <hr/> \$ 184,975
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CANADA

REPORT

of the

DEPARTMENT OF

DEFENCE PRODUCTION

January 1 to December 31, 1962

OTTAWA

TWELFTH REPORT

of the

DEPARTMENT

of

DEFENCE

PRODUCTION

1962

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Honourable RAYMOND O'HURLEY, *Minister*

G. W. HUNTER, *Deputy Minister*

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1963

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A deposit copy of this publication is also available
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Catalogue No. P1-4/1962

*To His Excellency Major General Georges P. Vanier, DSO, MC, CD,
Governor-General and Commander-in-Chief of Canada.*

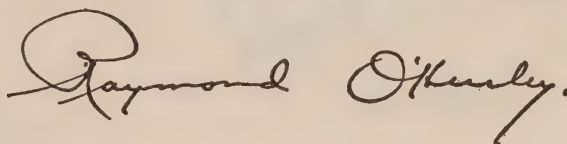
MARCH 20, 1963

MAY IT PLEASE YOUR EXCELLENCY:

I have the honour to submit to Your Excellency the Report of the Department of Defence Production for the calendar year 1962.

A summary of the operations and services rendered by this Department, under their respective headings, is laid before Your Excellency.

Respectfully submitted,

A handwritten signature in dark ink, reading "Raymond O'Hurley." The signature is fluid and cursive, with the first name "Raymond" and the last name "O'Hurley" clearly distinguishable.

Minister of Defence Production.

MARCH 19, 1963

The Honourable Raymond O'Hurley, P.C., M.P.,
Minister of Defence Production,
Ottawa, Ontario.

DEAR SIR:

I have the honour to submit the Report of the Department of Defence Production, which covers the operations and services rendered during the calendar year 1962.

Yours faithfully,

A handwritten signature in dark ink, appearing to be 'G. W. ...', written in a cursive style.

Deputy Minister.

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Responsibilities and Organization

UNDER the provisions of the Defence Production Act¹, by which the Department of Defence Production was established on April 1, 1951, the Department has:

- (1) exclusive authority to procure the goods and services required by the Department of National Defence, and
- (2) the responsibility to ensure that the necessary production capacity and materials are available to support the defence production programme.

The Department also has responsibility for defence development and production sharing with the United States, for defence production export activities with other Allied countries, and for armament co-operation within NATO. It co-operates with other Government departments to promote and strengthen the research capability of Canadian defence industry.

The Department utilizes the services of Canadian Commercial Corporation to assist it in obtaining foreign defence business for Canadian industry. It does the procurement for the Corporation, which is a Crown company primarily responsible for the purchase in Canada of defence goods required by other governments and of supplies needed to meet Canadian commitments under the Colombo Plan and other international agreements.

The organization of the Department, which had 1,520 employees on strength at the end of 1962, is essentially as follows:

Five production branches are responsible for obtaining defence supplies requiring specialized production facilities and for the direct implementation of the defence production sharing programme and other overseas exports of military equipment. These are the Aircraft, Armament, Electronics, Machine Tool and Shipbuilding Branches.

A General Purchasing Branch, which includes district purchasing offices in fourteen cities across Canada, procures the supplies and services not normally requiring special production facilities.

An office in Washington, U.S.A., maintains liaison with various United States Government agencies, is actively involved with the defence production sharing programme, handles procurement from the United States Armed Services, and directs a sub-office at Wright-Patterson Air Force Base, Ohio. Six production sharing liaison offices are located in the United States.

¹ Revised Statutes of Canada 1952, Chapter 62, as amended.

An office in London, England, conducts procurement activity in Britain. A small sub-office is located at Prestwick Airport, Scotland, to expedite certain repair and overhaul activities. Sub-offices in Paris, France, and Koblenz, Federal Republic of Germany, handle the normal procurement in those countries.

A defence development and production sharing office co-ordinates the Canada-United States programme as well as activities associated with NATO research, development and production programmes and defence exports to other Allied countries.

Seven advisory and service branches provide supporting activities to the Department's main procurement responsibility. These are the Administration, Comptroller's, Economics and Statistics, Financial Adviser's, Industrial Security, Legal and Secretary's Branches.

An Emergency Supply Planning Branch is working on plans and preparations for bringing a War Supplies Agency into immediate existence should a nuclear war occur.

Two defence production attachés are maintained in Europe. One is located in Bonn, Federal Republic of Germany, to represent Canada on the European Organization for Direction and Control of the F-104G programme. The other is located in the Canadian Embassy in Paris to assist Canadian industry to participate in European defence requirements.

The Department is represented by two members on the Canadian Delegation to the North Atlantic Council in Paris, France. These members are responsible for liaison with other national delegations and with the NATO international staff, and for making the Canadian viewpoint known on defence production matters of common concern to several members of the Alliance. They represent Canada on the NATO Armaments Committee which, in turn, controls a wide variety of expert working groups.

Military construction is the prime responsibility of Defence Construction (1951) Limited, a Crown company reporting to Parliament through the Minister of Defence Production. Occasional reference to military construction is made in this Report in order to show the magnitude of the direct effect of the defence preparedness programme on Canadian industry.

In addition to Canadian Commercial Corporation and Defence Construction (1951) Limited, three other Crown companies report to Parliament through the Minister of Defence Production. These are Canadian Arsenals Limited, Crown Assets Disposal Corporation and Polymer Corporation Limited. An account of the activities of the five associated Crown agencies is contained in their respective Annual Reports.

Implications of the Glasco Commission Report

Several recommendations in the first three volumes of the Report of the Royal Commission on Government Organization directly affect the Department of Defence Production. Steps were taken late in the year to implement one of the main suggestions in this study concerning the establishment of a Traffic Advisory Group, charged with the responsibility of improving traffic management throughout the Public Service. The group that is now being formed will concern itself with the efficient movement of both goods and personnel. During the course of the next calendar year the Department will be implementing several other recommendations in the Report in order to make further and continuing improvement in the way in which it handles its procurement activity.

Production and Procurement

THE Canadian defence preparedness buildup following the outbreak of war in Korea in 1950 reached the peak of its effect on the Canadian economy in 1953. In that year more than \$1 billion was paid directly to prime defence contractors in this country for the equipment, supplies, services and construction activity required by the Department of National Defence. Thereafter, a steady decrease in equipment requirements for the Canadian Armed Forces as the initial buildup phase was completed resulted in a shrinking flow of defence dollars into Canadian industry. Direct payments to Canadian defence contractors fell off fairly steadily to a level just over \$550 million, which has been maintained for the past three years.

The effect of this general decline in defence production and construction activity on Canadian industry was softened as a result of a continuing growth in the civilian sector of the economy as well as the gradual nature of the expenditure decline itself. Although not causing serious economic consequences in the overall economy, certain industries and sections of the country were noticeably affected by this fall-off in demand by the Canadian Armed Forces for goods and services.

The uneconomic effects on defence production of the decreasing requirements of the Armed Forces were relieved for a period by extending production runs to supply equipment to European countries under the Canadian mutual aid programme, sometimes jointly with United States mutual aid. This programme was largely phased out as these other countries took over more of the financing and production of their military equipment requirements, although a major joint Canada-United States mutual aid programme for the production of F-104G aircraft is now underway.

The need for a high level of defence preparedness on a continuing basis indicated that a modern, technically competent defence production base should be maintained as an inherent part of the Canadian economy and should contribute to its strength and growth. Crown owned defence production assets that had been bought under the Department's capital assistance programme were sold to contractors wherever possible or made available to them on a rental basis for use on commercial work. The sale or rental of these assets was generally on condition that their future use by the Crown for defence production purposes would be protected. This direct capital assistance was substantially reduced as defence contractors were encouraged to make their own investment in assets required for the production of military equipment. In this way, defence contractors were able to integrate their defence and civilian production to a greater extent, thus minimizing dislocations from changing military requirements.

The concept of continental defence accentuated the trend toward the adoption by the Canadian Forces of United States-type equipment. The complex nature of the important weapons systems, their vulnerability to rapid obsolescence, and the sophisticated research, development and production processes involved, resulted in most of the vital equipment being developed and initially produced in the United States. In cases where the Canadian requirement was too small to permit economic production in Canada, the equipment had to be purchased directly from the United States. Where production in Canada was considered necessary, the cost of royalties and technical assistance as well as of strategic components still meant an outflow of Canadian defence money to the United States.

This trend meant that an increasing proportion of the Canadian defence dollar would go to United States industry, thus reducing the amount available for Canadian industry, unless corrective action was taken. The Canada-United States defence production sharing programme was initiated to offset the effects of this dependence on United States developed equipment by encouraging a greater amount of United States defence production business in Canada. The success of this programme is covered in a later section of this Report.

As this concept of international weapons integration developed on a wider scale in the NATO organization, the need for defence production sharing arrangements with NATO countries other than the United States became apparent. During the past two years the Department has devoted some effort to interesting other Allied countries in Canadian military equipment.

The ability of Canadian industry to compete effectively with other countries for defence production business is, in the long run, dependent upon its ability to develop equipment and components that have the potential to meet some future military requirement, and to be able to produce items of required quality within necessary time limits at a competitive price. In recent years the Department has initiated financial programmes, in some cases jointly shared with other governments and the contractors concerned, to assist Canadian defence industry. These include assistance in developing items that have some potential in the field of defence production, in establishing qualified sources for the production of component parts and materials, and in making selected production items competitive with United States products. Details of this Departmental assistance to Canadian defence contractors are contained in other sections of this Report.

The Department is continuing in this important task of obtaining an equitable share of the overall defence production requirements. This is done with the realization that foreign defence business assists in keeping down the cost of the limited requirements of the Canadian Armed Forces, contributes to the standardization of military equipment among Allied countries, and benefits the

Canadian economy through its effect on such factors as employment and the balance of payments.

The benefits of this assistance are not limited to defence production. The resulting technological advances in the complex production operations of highly sophisticated weapons systems spread readily into other areas of Canadian production. Thus the economy as a whole is made stronger and better able to make its way in world markets.

In these various ways the Department has endeavoured to anticipate the effect on the Canadian economy of changes in defence concepts and requirements, and to provide the direction, encouragement and financial assistance to industry in this country so that it may benefit to the greatest extent from such changes and from the overall defence production requirements of the Western World.

Defence Contracting, 1962

Contracts having a total net value of \$797.6 million were issued in 1962, an increase of 20.7 per cent over the comparable total of \$660.7 million in the previous year. The "net value" of contracts is made up of the value of new contracts issued as well as amendments that increased or decreased the value of existing contracts.

The largest group of contracts, having a net value of \$536.7 million, was issued for the Department of National Defence. This is 1.5 per cent higher than the value of such Canadian Government defence contracts issued in 1961.

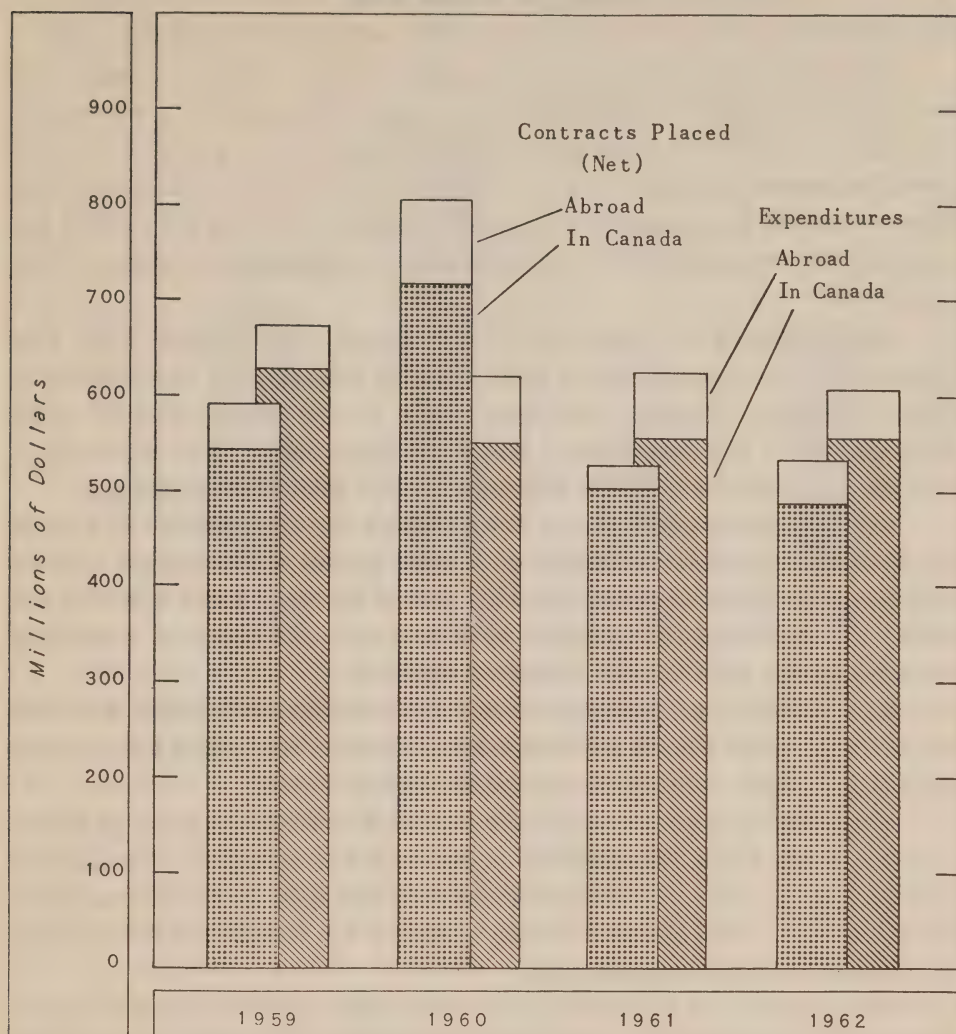
Foreign government defence (and a small amount of non-defence) prime contracts placed in Canada through Canadian Government agencies totalled \$225.6 million in 1962, of which \$202.9 million was for the United States, \$14.3 million for the Federal Republic of Germany and \$1.1 million for Britain. The corresponding value of foreign government prime contracts placed in Canada in 1961 is \$100.6 million.

Contracts issued against this Department's Votes to assist Canadian defence industry had a net value of \$9.4 million in 1962, compared with \$15.9 million in the preceding year.

In addition to the above groups of contracts, a total of almost \$25.0 million was issued for Canadian external aid and almost \$1.0 million for a miscellany of other purposes.

The above figures, and those contained in Appendix F of this Report, relate only to prime contracts administered by the Department of Defence Production and its associated Crown companies, Canadian Commercial Corporation and Defence Construction (1951) Limited. They do not include \$5.0 million in prime contracts placed directly with Canadian contractors by foreign govern-

Contracts Placed on Behalf of the Department of National Defence and Related Expenditures



ments and \$112.2 million in subcontracts placed in Canada by United States and other foreign defence contractors. Further reference to these direct prime contracts and subcontracts, which are reported to the Department by Canadian companies, is contained in the sections of this Report covering the defence production sharing programme and overseas defence exports.

Aircraft

The requirements of the Department of National Defence for aircraft, aircraft equipment and related services resulted in the placement of contracts by the Aircraft Branch in 1962 having a net value of \$202.4 million. This was

an increase of \$88.2 million over the value for 1961. Contracts placed on behalf of foreign governments, primarily the United States Government, amounted to \$86.8 million in 1962, as compared with \$32.7 million in the preceding year.

Production of the CF-104 Super Starfighter aircraft, which is replacing the F-86 Sabre in Europe, was well maintained throughout the year. Some adjustments were made to the CF-104 production schedule during the latter part of the year to permit the smooth phasing-in of F-104G production for the joint Canada-United States mutual aid programme. The Canadian company producing the CF-104 has assumed full responsibility for all technical and engineering aspects of the programme.

The production in Canada of CF-104 systems, pyrotechnics, tires, drag chutes, pumps and pylon tanks was well maintained and showed a very satisfactory domestic content. Canadian production began on the inertial platform gyro, which previously had been secured from the United States. Most of the gyros now being produced are for the European F-104G production programme.

The agreement entered into in 1961 between the Governments of Canada and the United States for a quantity of F-104G aircraft for mutual aid resulted in contracts being placed during the latter part of the year. These contracts will extend the production of Canadian companies that are close to completing requirements for the Canadian CF-104 programme.

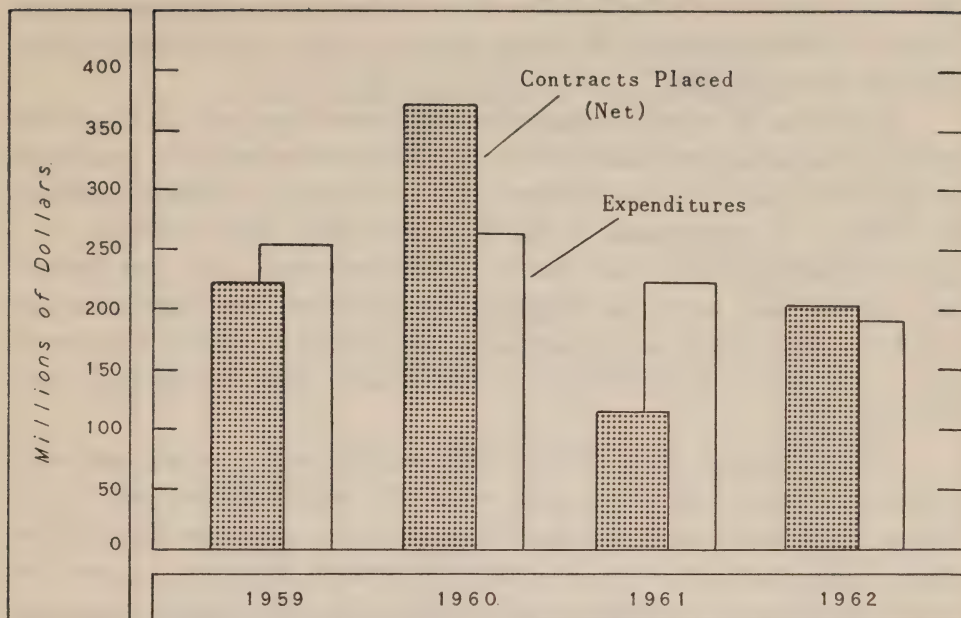
Early in the year deliveries of the initial order for fourteen dual seat CF-104D jet trainer aircraft was completed. A contract was placed for a further eight trainers, with delivery to commence early in 1963.

A contract was placed at mid-year for 190 CT-114 Tutor primary jet trainer aircraft for the Royal Canadian Air Force. The first aircraft is scheduled for delivery late in 1963. A prototype of the CT-114R systems trainer was flown during the year. This aircraft is being evaluated by various NATO countries as a possible weapons systems trainer.

Production of the Caribou I aircraft was accelerated to meet the requirements of the United States Army, which ordered an additional 101 of these aircraft during the year. This brought to 162 the number of Caribou aircraft ordered by the United States Army. At the end of the year negotiations were underway on a possible further sale of Caribou aircraft to the United States Army. The success of the Caribou I is such that other foreign Governments have expressed an interest in both the Caribou I and the Caribou II, which is a turbine powered version of the Caribou I with an enlarged fuselage.

Contracts were let for eight CHSS-2 (Sikorsky) helicopters for use in an anti-submarine warfare role by the Royal Canadian Navy. Five of these helicopters will be assembled in Canada, with the first scheduled for delivery early in 1964.

**Contracts Placed by the Aircraft Branch
on behalf of the Department of National Defence
and Related Expenditures**



Production of the J79-7 turbo-jet engine for the CF-104 aircraft was well maintained throughout the year, with a total of 160 engines produced. A contract was placed for the J79-11A engines for the mutual aid F-104G programme and work advanced to the stage where deliveries will be made early in 1963. The selection of the J85/CJ610 engine for the CT-114 trainer aircraft enabled an early start to be made on the plan for Canadian production of a substantial quantity. Delivery of T58 turbo-shaft engines for use in the CH-113 (Vertol 107 II) heavy helicopter was completed during the year, and a further quantity was ordered for the CHSS-2 helicopter. These programmes have increased the capability of Canadian manufacturers to compete in the defence production sharing programme with encouraging results.

The replacement of older type aircraft held by the Royal Canadian Navy and the Royal Canadian Air Force with smaller quantities of more modern and highly complex aircraft has created a problem in the repair and overhaul sector of the industry. The introduction of the more sophisticated aircraft and equipment affects the type of facility required, and the smaller quantities decrease the number of employees needed to perform repair and overhaul operations. However, it is expected that the volume of such work will remain fairly constant throughout 1963.

The Aircraft Branch's defence development and production sharing activity continued at an accelerated pace in the United States as well as other countries.

Canadian representatives participated in working groups, involving United States and other NATO countries, which carried out activities that were aimed at increased participation by the Canadian aircraft industry in foreign defence requirements. A substantial increase in foreign contracts placed with Canadian industry occurred during the year.

In the area of research and development, a feasibility study on a hydrofoil craft was successfully concluded during 1962 and continuation of the programme is expected to lead to the development and construction of a 200-ton prototype. In addition, the development of the PT-6 turbo-shaft engine continued at a most satisfactory level. A cost sharing arrangement was entered into between the United States Army, the Canadian contractor and this Department for the design, development and prototyping of the Caribou II aircraft. Four prototypes, to be flown and evaluated by the United States Army, will be built under this programme.

The development of the XM-571 high mobility tracked vehicle proceeded satisfactorily and is well into the trial period. This vehicle is being built for the United States Government. The surveillance and target acquisition drone system under development has been the subject of detailed discussions between the British and Canadian Governments with a view to joint development, prototyping and test trials of this system. The joint Canada-United States development of a 600 h.p. stationary gas turbine engine proceeded satisfactorily.

Armament

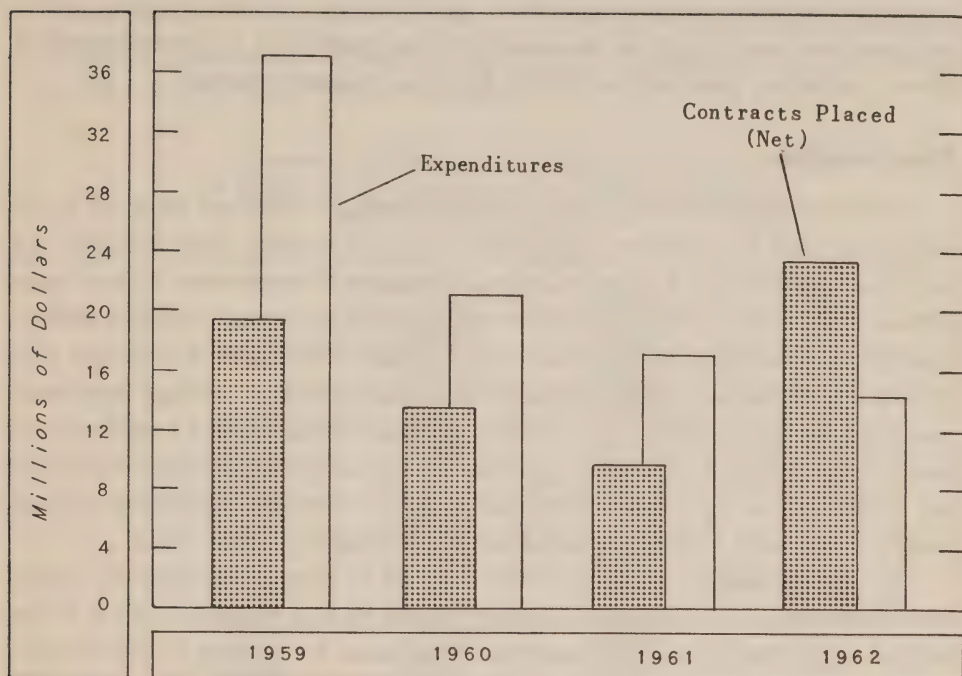
The decline over the past few years in Canadian military requirements for standard weapons and ammunition continued during 1962, but this was more than offset by new requirements for the replacement of guns by guided weapons systems.

Contracting for the Canadian Armed Forces increased from \$9.8 million in 1961 to \$23.5 million. The Branch's continued participation in defence development and production sharing activities contributed to the placement in Canada of \$7.8 million in prime contracts and \$24 million in subcontracts from other countries, principally the United States.

A number of major long-term ammunition production contracts were completed during the year. These included 105mm howitzer, 60mm, 81mm, 90mm, 3"/50 calibre, 4", 9mm blank, and various types of 7.62mm ammunition. In addition, production of 7.62mm rifles and delivery of the SS.10 anti-tank missile for the Canadian Army were concluded. Deliveries on a reduced scale continued during the year on 20 pounder and 105mm tank ammunition, 3"/70 calibre ammunition, anti-submarine cartridges, practice depth charges, and 9mm

and .30 calibre ball ammunition. Other items produced included tank navigation equipment, a range of pyrotechnics, and spares and accessories for existing military weapons.

**Contracts Placed by the Armament Branch
on behalf of the Department of National Defence
and Related Expenditures**



Contracts were issued for the production in Canada of acoustic homing torpedoes for both the Royal Canadian Navy and the Royal Canadian Air Force. Also, contracts were placed in France for SS.11 and Entac anti-tank missile systems for the Canadian Army. Procurement planning got under way on the weapons systems for the Frigate programme of the Royal Canadian Navy. These systems feature both medium and close range anti-aircraft missile installations along with 5"/38 calibre guns and torpedoes. This production planning proceeded as part of the overall ship programme.

In the field of defence exports, the Branch increased its efforts to locate and exploit opportunities for Canadian firms to participate in defence development and production programmes of the United States and other Allied countries.

The Branch administered a number of development assistance contracts designed to exploit unique Canadian developments. These included such projects as the Jiger vehicle, a fuel flame mixer, a hydro-jet propulsion device, a foam-in-place shelter and a family of atmospheric sounding rockets.

The development programme of the Black Brant upper atmospheric research rocket made good progress during the year, with successful test firings in the United States. The establishment of a solid rocket propellant plant in Canada progressed, with completion and commencement of production scheduled for early 1963.

Representation at NATO Working Group meetings was increased, especially in the area of weapons systems, such as the M72 light anti-tank weapon, where emphasis has been placed on arrangements that could lead to establishment of shared production pools within NATO for those systems adopted.

Electronics

The Electronics Branch issued contracts having a total net value of \$80.9 million in 1962 to meet the requirements of the Canadian Armed Forces for electronic equipment and related services. Payments to contractors against these contracts and similar contracts placed in earlier years amounted to \$102.6 million. Research, development and production of equipment accounted for 60 per cent of total expenditures, and the operation and maintenance of existing equipment accounted for the remainder. In addition, contracts valued at \$57.7 million were issued by the Branch for other governments, principally the Governments of the United States and the Federal Republic of Germany. Payments against foreign government contracts totalled almost \$40 million during 1962.

About \$3 million was spent during the year in support of electronic industrial technology, so that Canadian industry would be in a position to meet future defence requirements of Allied countries. Production for existing foreign defence requirements continued in a number of areas.

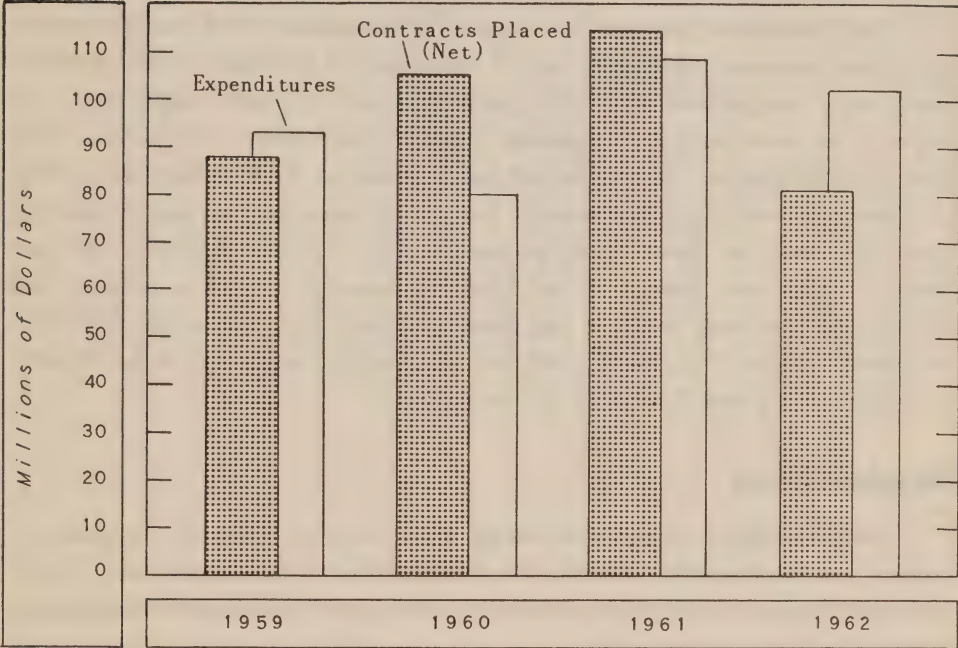
Radar, radiac and sonar equipment continued in production on a limited scale. Production of a counter mortar radar for the Canadian Army got under way and evaluation models were sold to the Federal Republic of Germany and to Italy. Interest in this radar has also been shown by other countries. Foreign defence requirements, particularly those of the United States, accounted for a significant level of production for such items as radomes, countermeasure equipment, plotting tables and sonobuoys. Previous Canadian expenditure on the development of these items contributed to this production for export. Departmental support was provided for further development by Canadian firms in such fields as sonar, radar, infrared and radiac detection, and data processing, so as to broaden the industrial base through Canadian production in these areas.

Communication and navigation equipment for various surface installations continued at a steady level. Production of line and radio equipment for the Canadian Army's communications network was largely completed. Procurement planning commenced on modernization of ground communication facilities of

the Royal Canadian Air Force and on communication equipment for the new general purpose Frigate programme. Industrial experience and capability in the general communications area resulted in orders for Canadian equipment from other countries. In anticipation of future requirements, industrial developmental support continued in more specialized applications in the communications field.

Electronics production for the CF-104 aircraft programme continued to be the largest single programme in the Branch. Production of fire control, computing and display equipment was supplemented by the requirement for the Canada-United States mutual aid F-104G programme.

**Contracts Placed by the Electronics Branch
on behalf of the Department of National Defence
and Related Expenditures**



Aircraft communications, navigation identification and airborne anti-submarine warfare equipment continued to be produced at a steady level. Production in the navigational area, which is being supplemented by United States orders, is also the result of past Canadian development work. This design work received continuing support with a view to anticipating electronic requirements from helicopter and vertical and short take-off and landing (V/STOL) aircraft programmes.

Aircraft flight and tactical simulators were in production for the Royal Canadian Air Force and for several other NATO countries. A models control

trainer was completed for the Royal Canadian Navy, and a United States order for machine controls was received as a result of Canadian industrial competence in this field.

Some armament electronic development based on past Canadian work in the infrared field continued for the United States. This development is expected to lead to the incorporation of some Canadian units in weapons which will be widely used by NATO countries.

The three main areas of operation and maintenance activity continued to be related to the Pinetree and Mid-Canada radar lines, the leasing of line communications for all sources, and the repair and overhaul of electronic equipment for ships, aircraft and armaments. The leasing of line communications is contributing both to production in Canadian industry and to the growth of civilian communications.

Special attention continued to be given to maximizing the Canadian content of defence electronic equipment that is developed or produced in this country. While some components are highly specialized and of limited application, the majority are standardized to exacting military specifications and require both formal quality approval of the product and approval of the manufacturer's ability to deliver consistently reliable products. Component firms were assisted in selecting items that could be economically produced. It is estimated that over the past decade a significant increase in the Canadian material content of defence and professional electronic products has been achieved. Expenditure on this effort amounted to about \$280,000 in 1962, but the changing technology in the industry is already posing new threats to this achievement.

Shipbuilding

The shipbuilding programme during 1962 included work on six destroyer escorts, one tanker-supply vessel, one hydrographic survey vessel, one Pacific Naval Laboratory vessel, eleven auxiliary vessels, small boats, and related design planning and procurement work.

Work continued satisfactorily on all six destroyer escorts in the repeat-Restigouche programme. The lead vessel, HMCS MacKenzie, was completed and commissioned by the Royal Canadian Navy. The second vessel neared completion and will be commissioned early in 1963, and two additional vessels were launched and progressed to the final stages of completion.

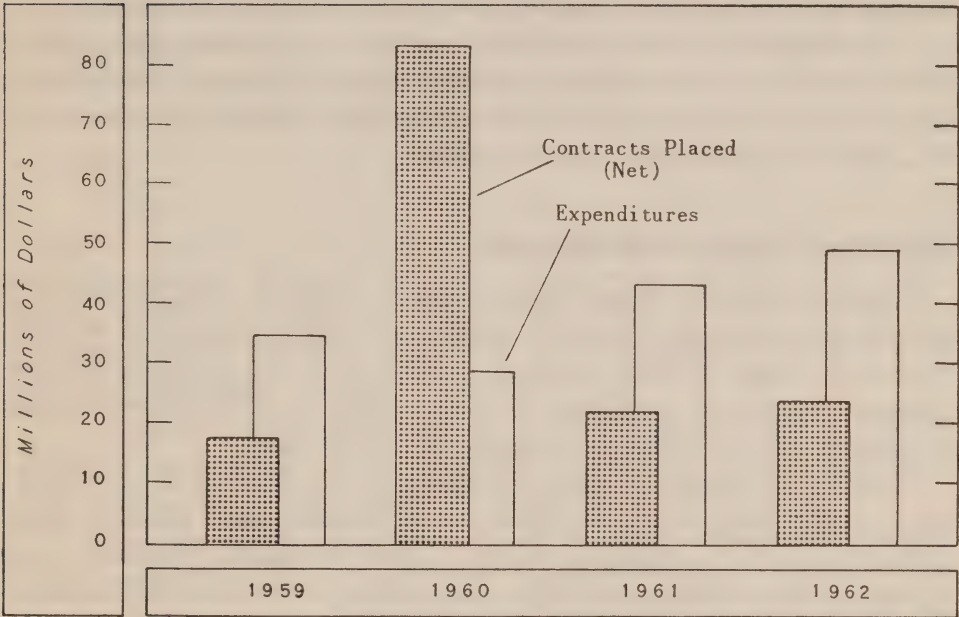
Work on the tanker-supply vessel, HMCS Provider, continued on schedule. This ship was launched and outfitting is proceeding.

Construction proceeded on the hydrographic survey vessel for the Department of Mines and Technical Surveys.

A contract was let late in the year for construction on the West Coast of an oceanographic and hydrographic research vessel for the Pacific Naval Laboratory. Contracts were also placed for a second standard diving tender, a dumb deperming barge, six landing floats and two diving floats. Work continued on a second tank cleaning barge.

Planning and scheduling activities began on the new general purpose Frigate programme.

**Contracts Placed by the Shipbuilding Branch
on behalf of the Department of National Defence
and Related Expenditures**



Maintenance of the Fleet involved 86 widely distributed contracts for ship repairs and refits during 1962 at an approximate value of \$8.2 million. As mentioned in the previous Annual Report, a target incentive type of contract for major repairs and refits has been introduced. A general assessment of the cost reductions achieved by this form of contracting has shown a general tightening up in this area.

Contracts for the conversion of two destroyer escorts were placed during 1962 with two West Coast yards. These conversions will be completed during 1963. This work is highlighted by the fact that ceiling contracts with a target incentive arrangement were negotiated, the first time this has been done by the Department for such work.

The Naval Shipbuilding Central Procurement Agency continued its operation under the supervision of this Department. This Agency is responsible for the bulk purchase, distribution and accounting associated with the supply of much of the equipment and material required to be worked into vessels of major shipbuilding programmes.

Activity in the field of component procurement for the Royal Canadian Navy continued at a very high rate. This was largely for the repeat-Restigouche programme and for maintenance of the Fleet. Preliminary work began during the year on the procurement of long-lead items for the general purpose Frigate programme.

Negotiations were concluded for the supply of two sets of the Canadian designed variable depth sonar handling gear for a Commonwealth country.

The Shipbuilding Branch continued its activity in the Canada-United States defence development and production sharing programme. Canadian manufacturers received contracts for such items as valves, propellers, wire rope assemblies, rudders, sea refueling equipment and steel plates.

Machine Tools and Gauges

The Machine Tool Branch issued contracts valued at \$501,000 in 1962 for machine tools, gauges and allied equipment for the Department of National Defence. A further \$78,000 worth of machine tools were purchased for the Canadian external aid programme. Contracts valued at \$739,000 were issued on behalf of other governments, primarily the United States.

The Branch also issued contracts amounting to \$213,000 for the care, maintenance and custody of standby Crown owned defence assets. These contracts covered the cost of maintaining various facilities in standby condition or in storage, the cost of machine tool repair and overhaul, and the cost of transportation. Tooling for the CS2F Tracker aircraft was transferred from plants in Toronto and Fort William, Ont., to a company in Amherst, N.S., as a result of a decision to have the repair and overhaul of this aircraft done in the Maritimes.

The inspection and technical personnel of the Machine Tool Branch undertook plant surveys and time study reports, and provided technical assistance in connection with machine tools and general production capabilities, for other Branches of the Department.

The Machine Tool Branch's participation in the Canada-United States defence development and production sharing programme was greatly increased during the year. Arrangements were made whereby various units of United States Arsenal and a major United States defence contractor submitted bid sets to the Machine Tool Branch for direct sourcing to Canadian firms.

General Purchasing

The main function of the General Purchasing Branch is the procurement of a highly diversified range of goods and services usually available from the open competitive market. In 1962, the Branch issued 141,900 contractual documents valued at \$179.7 million.

The headquarters segment of the Branch placed major contracts for heating and engine fuels, clothing and individual equipment, boots and shoes, motor vehicles and spare parts, construction, excavating and road maintenance equipment, electric wire, power and distribution equipment, canned and preserved foods, medical and dental equipment and supplies, chemicals and chemical products, paints, sealers and adhesives, photographic equipment and supplies, furniture, furnishings and appliances, paper products, containers, packaging and packing supplies, cleaning equipment and supplies, hand tools, hardware, materials handling equipment, fluorescent and incandescent lamps, metal bars, sheets and shapes, fire-fighting, rescue and safety equipment, instruments and laboratory equipment, rope, cable, chain and fittings, food catering, and aerial surveys.

The Branch participated in the preparation and implementation of standards outlining the minimum acceptable facilities and controls to be met by firms in the drug industry wishing to participate in the supply of Government requirements. Working in conjunction with the Department of Mines and Technical Surveys, standards were also developed to govern the listing of potential sources for aerial photography, mapping and associated work.

The product improvement phase of the programme covering the "Bobcat" family of light tracked vehicles progressed satisfactorily. Twelve preproduction pilot vehicles were in various stages of assembly at the end of the year.

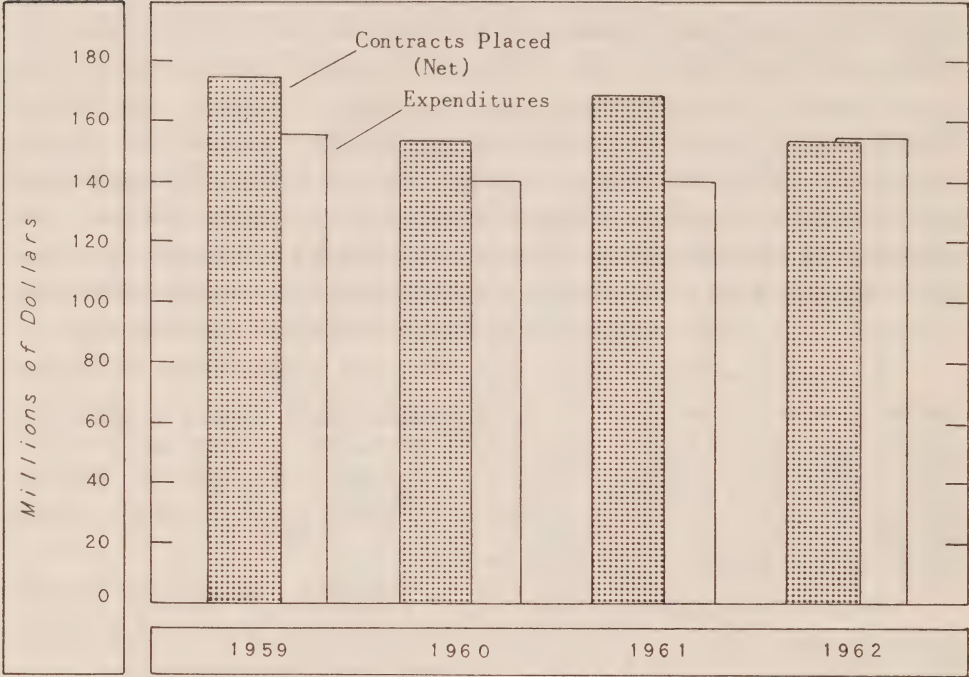
Emergency health and welfare supplies and many requirements in support of the national survival programme were acquired, including anaesthetics, aluminium litters, hospital beds, blankets, portable X-ray units, portable decontaminating apparatus, parkas and insulated boots, rubber water storage tanks, sirens, and mapping.

Substantial external aid procurement was undertaken for Burma, India, Pakistan and a number of African countries, involving such items as turbines, mining cars, paper, bleached sulphite pulp, fertilizers, herbicides, cranes, tabulating equipment, power plant equipment, motor trucks, and steel grain silos.

Some research projects were undertaken during the year to improve purchasing performance. These included the most advantageous period of the year to contract for the supply of rubber footwear, textiles and batteries; the development of new sources of supply for such requirements as canisters for gas masks and military clothing items; the wider application of standing offer agreements

for the supply of hardware, lumber, plumbing and electrical supplies at the regional level; and the improvement of contractual arrangements for the procurement of eggs, portable power tools and the servicing of ground fire-fighting equipment.

**Contracts Placed by the General Purchasing Branch
on behalf of the Department of National Defence
and Related Expenditures**



Fourteen district offices located across Canada purchased, from sources within their areas, goods and services required to support the daily activity of regional defence establishments. These district offices processed 125,100 contractual documents for a total value of \$59.0 million. (These figures are included in the Branch figures shown above.) In addition to their normal procurement functions, district purchasing agents participated in exercises, conferences and training sessions associated with the national survival programme. It was necessary to develop supply arrangements for a number of radar stations formerly operated by the United States Air Force that were transferred to the Royal Canadian Air Force during the year.

Procurement by Offices Outside Canada

The Department's offices located outside Canada issued contracts valued at \$15.8 million in 1962, as compared with \$13.1 million in 1961.

The Washington Office handled all procurement from the United States Armed Services and, in a few exceptional cases, from commercial firms in the United States. Most procurement from United States commercial sources was made directly by the appropriate production or purchasing branch in Ottawa. Contracts issued by the Washington Office in 1962 amounted to almost \$6.9 million. This Office also maintained regular liaison with many United States Government agencies, handled Canadian participation in the United States priorities and expediting systems, and supplied a wide range of information to Canadian Government officials. The Office spent much time on the Department's production and development sharing activities, which are covered in the next section of this Report. In this connection, it handled a large number of inquiries and arranged numerous meetings involving Canadian and United States Government officials, contractors and subcontractors. The Washington Office directed the activity of a sub-office at Wright-Patterson Air Force Base, Ohio, involving operations with the United States Air Force.

The London (England) Office issued all Departmental contracts in Britain, dealing with British Government agencies, such as the Admiralty, the Ministry of Aviation and the War Office, and a large number of commercial firms. The largest contracts with the British Government were for tank spares, while repair and overhaul of aircraft and equipment for the Royal Canadian Air Force in Europe accounted for a large value of the contracts placed with commercial establishments. A small sub-office located at Prestwick Airport, Scotland, expedited this repair and overhaul work. The London Office also directed sub-offices in Paris, France, and Koblenz, Federal Republic of Germany, which procure the normal requirements of the Canadian Forces stationed in those countries. This procurement is chiefly carried out through the Governments of the two countries. The London Office and its two continental sub-offices placed contracts valued at just over \$8.9 million in 1962.

Defence Production and Development Sharing

IN 1962, \$254.3 million worth of United States defence production sharing business was placed with Canadian industry. This is a 78 per cent increase over 1961, due largely to contracts for Caribou aircraft and a contribution by the United States to the joint Canada-United States F-104G aircraft programme. The total United States defence production sharing business in this country during the four years of the programme is \$605.9 million.

On the other hand, Canadian defence production sharing business in the United States amounted to \$127.4 million in 1962, bringing the total for the four years of the programme to \$526.2 million. Thus, in 1962 United States defence production sharing business in Canada exceeded corresponding Canadian business in the United States by \$126.9 million. While the balance of production sharing business between Canada and the United States had been \$47.2 million in favour of the United States at the beginning of 1962, it had at least temporarily reversed by the end of the year to \$79.7 million in Canada's favour.

Defence production sharing business between Canada and the United States is measured on the basis of definitions and statistical techniques approved by both countries. The classes of contracts included in the defence production sharing group are applied research and development, pre-production, production, licence agreements and technical assistance, installation (other than construction), and repair, overhaul and modification. The production sharing figures do not include contracts for "off-the-shelf" general procurement, construction, basic raw materials, fuels and lubricants, and services (such as transportation, rentals and maintenance of fixed installations). Thus, it is not possible to compare figures measuring the defence production sharing programme, which include subcontracts as well as selected areas of prime contracts, with figures in other sections of this Report that relate to the prime contracting for which this Department is directly responsible.

Regular monitoring and direction of the defence production sharing programme was provided by a Committee of senior officials of both Governments. The Canadian Government had representatives from the Departments of Defence Production, National Defence, Finance and External Affairs. The United States Government had representatives from its Departments of Defense, Army, Navy and Air Force and the newly established tri-service Defense Supply Agency.

Co-ordination of development sharing projects supported by the Department's development fund was provided by an Inter-departmental Committee made up of representatives from the Departments of Defence Production and National Defence and the Treasury Board staff.

The Department's Production Sharing Co-ordinating Office maintained close liaison with other Canadian Government departments and with appropriate authorities in the United States. Co-ordination with the Department of Trade and Commerce was continued to ensure that liaison opportunities provided by trade commissioners and trade shows in the United States were fully exploited. Defence Production field representatives stationed at major United States centres (see Appendix E) and the Department's Washington Office sustained their support of the programme. The production branches of the Department continued their close liaison with industry in order to maintain the high level of activity in the programme and to ensure the appropriate source listing of Canadian firms at the various United States military agencies.

During the year, continuing attention was given to simplifying procedural arrangements, such as those involved in the United States duty regulations, security matters, obtaining specifications and interpreting new instructions issued by the United States Department of Defense and military authorities.

A new edition of the "Production Sharing Handbook" was published, and 19,500 copies of this and the previous edition had been distributed to the end of 1962. A steady demand continued for the "Canadian Commodities Index", issued in 1961, and over 7,500 copies had been distributed to the end of the year.

Two new publications relating to research and development were published in 1962. One was a "Guide to Research and Development Capabilities in Canadian Defence Industry" designed to assist Government research and development agencies and defence industry in the United States to locate potential sources within Canadian industry. The other was a "Defence Development Sharing" handbook designed to assist Canadian companies in participating in United States defence research and development requirements.

The Defense Supply Agency, a new United States organization which has been assigned the overall logistic responsibility for certain common items used by all three Services, became party to the basic letter agreement between this Department and the United States military departments. The Agency defined those Canadian commodities excepted from the provisions of the Buy American Act.

Assistance was given to Canadian industry for research and development projects of interest to the United States Services. Contracts amounting to \$8.5 million were issued in 1962 for this type of assistance, with expenditures totalling almost \$6.8 million. Among the major new projects were surveillance and guidance systems, short take-off and landing (STOL) aircraft, communications and navigation equipment, and surface vehicles.

These efforts resulted in significant increases in bid solicitation and submissions in the prime contract area. United States inquiries to Canadian industry

rose from 5,786 in 1961 to 8,290 in 1962, and responses by Canadian companies rose from 1,799 to 2,384. Prime contracts placed by the United States Government with Canadian Commercial Corporation rose from 830 to 1,088, having a total value of \$176.5 million. In the subcontract area, solicitations rose from 2,524 in 1961 to 3,108 in 1962, and responses rose from 1,986 to 2,624. Subcontracts received by Canadian firms increased from 1,111 to 1,769, valued at \$76.5 million. Other prime contracts received directly from the United States Government by Canadian industry and other institutions totalled \$1.3 million.

In addition to contributing to Canadian industrial defence technology, Canada's defence development and production exports, including the overseas business reported in the following section, now account for a very substantial part of industrial defence business. The achievements of the production and development sharing programme during 1962 have been encouraging, and the programme has become an increasingly important factor in the Canadian defence economy.

Canadian Co-operation in NATO on Research, Development and Production

CANADA'S activities in connection with the research, development and production programme of the North Atlantic Treaty Organization continued to be co-ordinated by the Department. This programme endeavours to attain maximum efficiency in the standardization and production of military requirements by member countries. The Department provided the Canadian representative on the NATO Armaments Committee, which administers the programme.

Canada has submitted for consideration by the NATO groups a number of projects in the fields of vertical and short take-off and landing (V/STOL) aircraft, mobile radar, vehicle navigation equipment, sonar equipment, personnel carriers, anti-tank weapons, anti-personnel land mines, airborne navigation aids, aircraft engines, telephone terminal equipment and data handling equipment. Of major interest were the Canadian aircraft industry's submissions of design studies for medium range transport and strike reconnaissance aircraft in the V/STOL class. The Canadian electronics industry also submitted design proposals on data handling equipment for a coastal escort and patrol craft system. Other projects of potential interest to the Canadian armament industry were under active consideration. There has been a broadening of the exchange of information on national research, development and production programmes.

Close liaison was maintained between this Department and the Department of National Defence and other Canadian Government agencies concerned with the programme. This Department, the Department of National Defence and the National Research Council provided representation at meetings in Paris to review most of the projects, and supplied detailed information on the Canadian proposals. In addition, representation was provided at meetings of existing groups of experts by various Government agencies.

In December 1962, the NATO defence ministers concurred in the report of a senior group recommending substantial changes to expedite the progress of the programme.

Defence Exports to Overseas Countries

As a result of the increased activities within NATO, a number of countries have expressed their interest in Canadian defence equipment. Canadian industry has been encouraged to participate in supplying the defence needs of European and other countries in such areas as aircraft flight simulators, navigation aids and engine spares. Visits and the exchange of information with countries at government and industry levels have proved of mutual benefit.

The Department continued to assist Canadian industry in seeking opportunities to develop and produce defence equipment for other countries. In addition to procurement offices in Europe and representation on the NATO delegation, the Department maintained defence production attachés in France and the Federal Republic of Germany. The Department also arranged for appropriate visits by officials to co-operate in meeting the defence equipment needs of overseas countries.

Some 50 Canadian firms received defence prime contracts and subcontracts, amounting to \$45.1 million in 1962, from 40 overseas NATO and other countries (excluding the United States). The corresponding value for 1961 was \$42.0 million. Prime contracts from overseas governments in 1962 amounted to \$9.4 million, of which the major contract was for F-104G flight simulators for Italy. Subcontracts placed in Canada by overseas firms amounted to \$35.7 million, the largest involving gyros, platforms and computers for a number of European countries, and aircraft and vehicle spares for the Federal Republic of Germany.

During 1962, the Canadian Government and Canadian industry ordered defence goods and services from overseas suppliers amounting to some \$28.5 million.

Defence Production and Canadian Industry

DURING 1962, defence procurement and construction activity, including activity on foreign defence prime contracts and subcontracts placed in this country, represented approximately 2.1 per cent of Canada's gross national product. Production and employment in the aircraft industry were about the same in 1962 as in the preceding year, although a decline occurred in the latter months of the year as work on the CL-44 transport aircraft came to an end. In the shipyards, work on the destroyer escorts contributed to a generally higher level of activity. Defence work in the electronics industry decreased somewhat but this was more than offset by increased civilian production, particularly of television receivers. The armaments industry underwent a further decline in output during the year. Defence construction activity was strong in the early months but declined towards the end of the year.

The maintenance of an appropriate defence production base in Canada continued to receive emphasis in the Department. The defence production and development sharing programme and increased emphasis on the sale of Canadian military equipment to other Allied countries assisted in raising the level of industry's development and production competence as well as increasing the utilization of defence production capacity. The results of these activities are covered in previous sections of this Report.

The Department continued its programme of establishing qualified sources in this country for component parts and materials essential to the production of modern military equipment. Because of the urgent nature of many military requirements, this advance qualification will ensure the maximum participation of Canadian component firms in defence procurement, thus making Canadian producers less dependent on foreign sources of supply. A further aim is to prove the capability of producing a requirement at a competitive price, as well as to required performance standards, so that Canadian sources can meet both foreign and Canadian demand. Some \$279,000 was spent on this programme in 1962, and new commitments amounting to \$291,000 were made to establish qualified sources for the production of such items as precision electronic ceramics, synchros, high frequency silicon transistors, magnetrons, miniature precision gear boxes and variable composition resistors.

Government financed capital assistance to private industry involved the expenditure of \$153,000 in 1962, most of which was for equipment for the environmental testing of electronic components, for the production of 105mm shot and for the extension of a runway. New capital assistance contracts amounted to \$92,000. Title to all capital assistance assets remains with the Crown, and

the contractor responsible for their use is held accountable for their proper maintenance.

Interim certificates for additional capital cost allowance for income tax purposes (accelerated depreciation) were granted on almost \$600,000 worth of capital assets in 1962. These assets were mainly required for the production of radomes, aircraft hydraulic components and the repair and overhaul of aircraft, aircraft engines and components.

In some cases Crown owned assets were rented to private firms for non-defence work, thus enabling defence production equipment to be further integrated into the civilian production process. The rentals charged were such as to ensure a fair return to the Crown on the assets concerned.

During the year, \$1,056,000 was spent on the care, maintenance and custody of standby Crown owned defence production facilities and equipment where it was not possible to keep them operating for either defence or civilian requirements. The largest portion of this cost was for the maintenance of tooling for ships' engines.

The Department co-operated with the Defence Research Board in selecting projects for the defence industrial applied research programme, which was established in 1961 to promote and strengthen the research capability of Canadian defence industry. The Department negotiated and issued a number of contracts under this programme for the Board.

Materials Supply

The supply of Canadian prime metals and semi-fabricated materials in 1962 was sufficient to meet Canadian defence, atomic energy and production sharing programmes, but Departmental assistance was constantly required to obtain satisfactory deliveries of components to keep programmes on schedule. The supply of certain other types of metallic and non-metallic materials used in this country's defence and related programmes was dependent on allocations under the United States Defense Materials System. Canada's dependence on foreign sources for prime metals and basic materials decreased as new and expanded facilities came into production.

Canadian defence and atomic energy requirements for helium continued to depend on supplies from the United States. However, new helium deposits in Western Canada are being brought into production and it is anticipated that Canadian demands will be met from these sources in the near future.

Increased domestic and foreign demand resulted in a seven per cent rise in the production of primary aluminum. Canadian facilities producing mill forms operated at near capacity, and Departmental intervention was required to expedite urgent defence requirements.

Production of primary copper was reduced during the year. Although demand for mill forms continued at a high rate, supply was sufficient to meet world demand and no undue difficulties were encountered in meeting defence requirements. Production of primary nickel in Canada was decreased during the year due to a combination of a general lower demand and increased availability from one supplier that had completed delivery to the United States stockpile.

Sales of tin from the Department's stockpile to Canadian consumers were handled by the Department through a private broker. This disposal action was taken with the approval of the major tin producing and consuming countries, and with the understanding that sales would be made in a manner that would cause the least disruption to the economies of the producing countries. As a result, the sales were made at going market prices and at a rate that has not disrupted the normal market.

An increasing number of Canadian defence and atomic energy contractors have found it advisable to take full advantage of United States priorities, allocations and special assistance provided to Canadian contractors under the United States Defense Production Act. They have, in general, obtained very satisfactory results even when competing for conventional type war support items against an accelerated United States defence programme. Canada's major defence programmes were again included in the United States Master Urgency List, thus ensuring an equitable supply of strategic and critical materials to meet production schedules.

Emergency Supply Planning

IN 1962, the Emergency Supply Planning Branch continued with plans and preparations to bring a War Supplies Agency into immediate existence in the event of a nuclear war. The Agency would assume control of the production, distribution and pricing of all civilian and military supplies except for certain aspects of the agricultural and fishing industries. The staffing of the national and regional components of the War Supplies Agency on a standby basis was completed, and good progress was made in the selection of zonal standby staffs. In several areas, a beginning was made in the selection of standby staff for local components.

The research programme on food stocks was extended. New surveys of inventory stocks and related production facilities were initiated in the materials field. In co-operation with the oil industry, energy vulnerability studies were begun and are continuing. In addition, economic studies of two emergency government zones and reports on specific segments of industry were completed. Although the research programme as a whole is primarily a long-term project, significant progress was made.

Various emergency regulations and orders required to bring the War Supplies Agency into existence and give it authority under the War Measures Act were reviewed in their peacetime draft form and brought up to date. Manning and warning procedures were revised, and a system for the control of personnel records of the national and regional standby staffs was instituted in co-operation with the Economics and Statistics Branch.

Plans for consumer rationing advanced to the point where sample ration documents were approved by an interdepartmental advisory committee. Agreement was reached on the transfer of a quantity of surplus military clothing to the Department of Defence Production for civilian use under War Supplies Agency control in an emergency. Also, the Government approved a programme of industrial preparedness measures developed by the Branch and assigned to this Department primary responsibility for implementing it.

In the fall of 1962, Branch officials took part in a NATO Exercise, primarily as a means of assisting the military Services in identifying their supply requirements. A course was conducted at the Canadian Civil Defence College covering resource analysis and local supply problems under nuclear war conditions.

At the end of the year the Branch had included on its staff a Regional Director in every province except Prince Edward Island, and had two zonal officers in Ontario.

Advisory and Service Branches

THE responsibilities of the Department's advisory and service branches were described in some detail in the Annual Report of the Department for 1961. The brief statements below contain the major activities or developments that occurred during 1962.

The Administration Branch continued to provide a wide range of services in the field of personnel administration. The Branch opened a Departmental library and established a foreign service unit to deal with the increased number of Departmental officers in the United States and Europe. The employee appraisal programme, designed to improve personnel standards, was expanded to include senior buyers in the General Purchasing Branch. Training and development programmes were characterized by a more intensive application of Departmental experience. A long-range personnel development programme was planned as a service to the procurement and production branches. The Branch's central typing pool was merged with the typing services provided by the Secretary's Branch. A study was made of the external procurement functions of the Department and Canadian Commercial Corporation so as to improve services in connection with export defence business. Initial action was taken on the recommendations that resulted from a typing and transcribing survey undertaken in the Department by the Civil Service Commission. Re-organization of the support staff structure in the General Purchasing Branch was initiated and will result in efficiencies in the typing and support functions.

The Comptroller's Branch provided the accounting service required by the Department. Records were maintained of all transactions against Departmental appropriations and of all assets and liabilities for which the Minister of Defence Production is responsible. Activity in connection with the administration of the Defence Production Revolving Fund was affected by the growing financial operations with respect to the Canada-United States mutual aid F-104G aircraft programme and production of CL-44D4 cargo aircraft and sonobuoys. The inspecting and recording of Crown owned productive assets with defence contractors has become more associated with specialized test items required by new programmes covering sophisticated defence equipment.

The Comptroller's Branch also provided the accounting, banking and financial services of Canadian Commercial Corporation. This work has increased during the year because of the greater volume of foreign defence business in Canada generated by the Canada-United States defence development and production sharing programme and the Department's emphasis on the export of military equipment to other Allied countries.

The financial position of the Department as at March 31, 1962, is shown in the Balance Sheet and related schedules in Appendix G, duly certified and reported upon by the Auditor General.

The Economics and Statistics Branch provided the general economic and statistical services required by the Department. A study of the Canadian electronics industry, undertaken because of its importance to defence production, neared completion at the end of the year. The Branch initiated a new periodic report on defence procurement between Canada and all Overseas countries (excluding the United States). This is in addition to the quarterly statistical report prepared in the Branch on the Canada-United States defence production sharing programme. Forecasts of future defence procurement expenditures were provided regularly throughout the year to the Department of National Defence. Approximately 165,000 contracts and related documents and some 300,000 pre-punched expenditure cards were analysed with the aid of data processing equipment. The volume of data processing for the Emergency Supply Planning Branch was much greater in 1962 than in the preceding year. Among the many ad hoc projects completed was one for the Royal Commission on Banking and Finance in connection with the time involved between receipt of requisitions from the Department of National Defence and the issuance of contracts by this Department, and between the placing of contracts and subsequent payments by National Defence.

The Financial Adviser's Branch advised on the development and application of financial policies related to defence contracts. This involved the review of major contract proposals to ensure the proper application of Departmental policies and the correct interpretation of requisitioned requirements. The Branch reviewed contract audit reports and assisted in resolving cost and profit problems arising from them. Studies were undertaken during the year on profit incentives for design changes and incentive target contracts, cost and profit positions for field service work, and the application of overhead costs to defence work. The Branch participated in reviews of the coverage of insurance policies relating to cost reimbursable contracts and of the profit position of follow-on contracts resulting from assistance provided under the defence production sharing programme. The Branch provided information on contractor liability for taxes and duties, and advised on related problems arising from contract negotiations. Applications for capital assistance or additional capital cost allowance (accelerated depreciation) were reviewed in the light of Departmental policy. Declarations of surplus items were screened for approval and the use of Crown equipment on non-Canadian defence work was assessed for rental charges. The preparation of the Department's estimates and the appropriations of associated Crown companies were co-ordinated. The Branch

administered municipal grants made in lieu of taxes on Crown owned defence plants operated by private contractors.

The Legal Branch advised on the legal implications of the policies and procedures of the Department and the legal steps required to protect the Department in its transactions. Legal work increased in regard to the United States purchase in Canada of F-104G aircraft for mutual aid to NATO countries, part of the cost of which is borne by Canada. This involved the drafting of production contracts under the programme as well as licensing and royalty agreements which had to be negotiated with corporations in Canada and the United States for associated technical data. Contracts were also prepared in respect of the new CT-114 jet trainer programme for the Royal Canadian Air Force, including licensing arrangements for the production by a Canadian contractor of the United States designed engine. Business obtained by Canada under the expanding defence development and production sharing programme with the United States involved extra legal work. This included advice regarding the formal contracts between the Government of the United States and Canadian Commercial Corporation as well as advice regarding the corresponding contracts with Canadian industry.

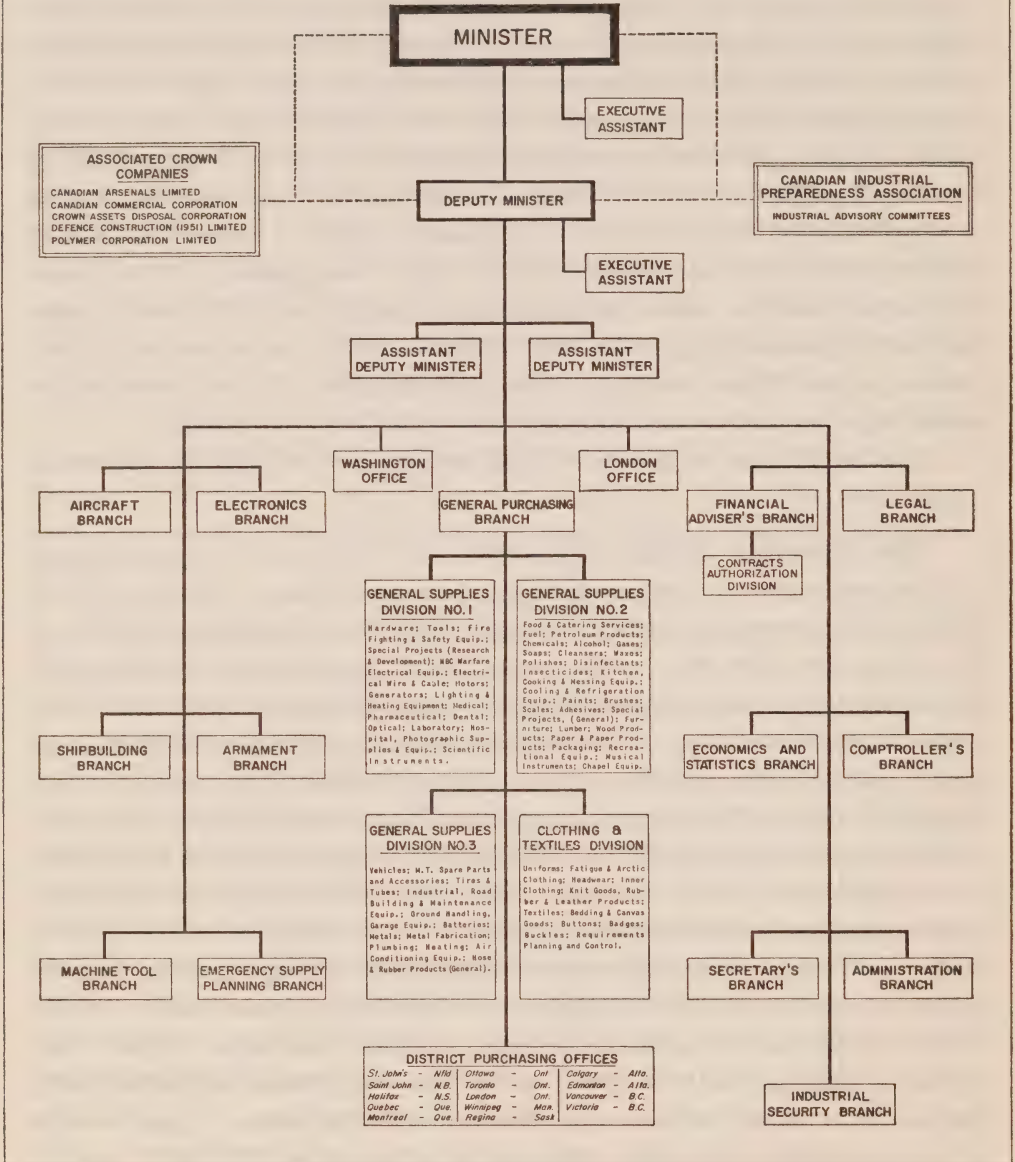
The Legal Branch performed all legal work required by Canadian Commercial Corporation.

The Secretary's Branch administered the Department's communications, printing and stationery, central registry and service divisions. The Secretary co-ordinated the emergency planning activities within the Department. The Branch, in co-operation with the various procurement branches, greatly extended the standardization of phraseology used in the various procurement documents. As a result, larger portions of such documents can now be produced by automatic typewriters with a resulting saving in personnel costs. The Branch improved procedures associated with the Department's source lists (lists of firms capable of producing required items) so the information would be more readily available to buying units. At the same time, part of the work of the service division was decentralized by attaching automatic equipment and operating personnel directly to individual buying units, thus bringing the preparation of procurement documents under the close supervision of their originators. The use of a modern telecommunication service, which provides more economical and direct exchange of messages with other subscribers in Canada, the United States and Europe, was extended and further installations will be made if traffic surveys indicate it will reduce costs. A quality control unit was constantly employed in reviewing the content of the 175,000 files required in the Department's operations with a view to eliminating obsolescent files and removing non-essential from active ones.

Appendix A

DEPARTMENT of DEFENCE PRODUCTION

ORGANIZATION as at DEC. 31, 1962



Appendix B

Senior Personnel of the Department

as at December 31, 1962

Minister

The Honourable Raymond O'Hurley, P.C., M.P.

Executive Assistant to the Minister A. Trudel

Deputy Minister

G. W. Hunter

Assistant Deputy Minister W. H. Huck
Assistant Deputy Minister D. B. Mundy
Executive Assistant to the Deputy Minister W. J. Mulock

Production Branches

Director, Aircraft Branch D. L. Thompson
Deputy Director, Aircraft Branch A. D. Belyea
Director, Armament Branch C. L. Muir
Director, Electronics Branch J. S. Glassford
Deputy Director, Electronics Branch S. I. Comach
Deputy Director, Electronics Branch T. C. Jones
Director, Machine Tool Branch R. Mosher
Director, Shipbuilding Branch J. C. Rutledge

General Purchasing Branch

Director D. M. Erskine
Deputy Director R. C. D. Laughton

Emergency Supply Planning Branch

Director J. C. Morrison

Advisory and Service Branches

Financial Adviser R. M. Keith
Deputy Financial Adviser N. R. MacLean
Director, Contracts Authorization Division R. E. Sayers
Comptroller G. F. Wevill
Deputy Comptroller T. E. Brown
Departmental Secretary J. J. Tevlin
Director, Administration Branch H. R. Kotlarsky
Director, Economics and Statistics Branch W. J. W. V. Johnston
Director, Industrial Security Branch L. C. Cragg
Director, Legal Branch F. F. Waddell
Deputy Director, Legal Branch C. S. Stevenson
Director, London (England) Office R. D. Roe
Director, Washington Office J. A. Teeter

Appendix C

Distribution of Departmental Staff

as at December 31, 1962

	Number of Employees
Minister's Office	11
Deputy Minister's Office	32
Aircraft Branch	159
Armament Branch	74
Electronics Branch	176
Machine Tool Branch	27
Shipbuilding Branch	103
General Purchasing Branch—	
Head Office	199
District Purchasing Offices	144
Emergency Supply Planning Branch	55
Administration Branch	80
Comptroller's Branch	86
Economics and Statistics Branch	37
Financial Adviser's Branch	52
Legal Branch	9
Secretary's Branch	167
Industrial Security Branch	24
Offices in the United States and Europe, and NATO Delegation, Paris	85
Total	1,520

Appendix D

Crown Companies Associated with the Department of Defence Production

as at December 31, 1962

Canadian Arsenals Limited

Chairman of the Board	J. G. Notman
President and General Manager	J. R. Brisson ¹
Vice-President	G. W. Hunter
Secretary-Treasurer	D. C. Cullen

Canadian Commercial Corporation

President	M. H. Lamoureux
Secretary and Legal Adviser	F. F. Waddell
Comptroller	G. F. Wevill

Crown Assets Disposal Corporation

President and General Manager	Louis Richard
Vice-President	G. W. Hunter
Assistant General Manager	I. M. Mackinnon
Secretary and Legal Counsel	M. J. Ellsworth

Defence Construction (1951) Limited

President and General Manager	R. G. Johnson
Secretary	J. D. Jennison
Treasurer	N. Tokaryk

Polymer Corporation Limited

Chairman of the Board	E. J. Brunning
President and Managing Director	E. R. Rowzee
Vice-President, Operations	L. D. Dougan
Vice-President, Finance	S. Wilk
Vice-President, Marketing	R. E. Hatch
Vice-President, Research and Development	Dr. E. J. Buckler
Secretary and Chief Legal Officer	W. J. Dyke

¹ Effective February, 1963.

Appendix E

District Purchasing Offices and Offices Located Outside Canada

Addresses as at December 31, 1962

District Purchasing Offices

ST. JOHN'S, NFLD.	Room 401, Main Post Office Building, Water Street. (P.O. Box 487).
HALIFAX, N.S.	Room 527, Federal Building, Bedford Row. (P.O. Box 1655).
SAINT JOHN, N.B.	Room 408, Sadim Building, Canterbury & Duke Streets.
QUEBEC, P.Q.	126 St. Peter Street. (P.O. Box 70—Station "B").
MONTREAL, P.Q.	685 Cathcart Street.
OTTAWA, ONT.	953 Somerset Street West.
TORONTO, ONT.	Room 1214, Mackenzie Building, 36 Adelaide Street East.
LONDON, ONT.	388 Dundas Street. (P.O. Box 2275—Terminal "A").
WINNIPEG, MAN.	Room 326 E, 344 Edmonton Street.
REGINA, SASK.	302, New Post Office Building, Cornwall & S. Railway Streets.
CALGARY, ALTA.	Room 725, Public Building, 8th Avenue & 1st Street East.
EDMONTON, ALTA.	Room 309, Federal Building, 107th Street & 99th Ave.
VANCOUVER, B.C.	Room 407, Federal Building, 325 Granville Street.
VICTORIA, B.C.	Room 318, Canada Customs House, 816 Government Street.

Offices Located Outside Canada

WASHINGTON, U.S.A.	Canadian Department of Defence Production, 2450 Massachusetts Ave., (P.O. Box 4897, Cleveland Park Station), WASHINGTON 8, D.C., U.S.A.
Sub-Office	MCL DDP Wright-Patterson Air Force Base, OHIO, U.S.A.

PRODUCTION SHARING

LIAISON OFFICES

Canadian Department of Defence Production,
c/o Canadian Consulate General,
680 Fifth Ave.,
NEW YORK 19, N.Y., U.S.A.

ROP/DDP

Rome Air Materiel Area,
Griffiss Air Force Base,
ROME, N.Y., U.S.A.

Canadian Department of Defence Production,
AMC/ESC/LEX,
L.G. Hanscom Field,
BEDFORD, Mass., U.S.A.

Canadian Department of Defence Production,
c/o U.S. Army Electronics Materiel Agency-
SELMA-A13,
225 South 18th Street,
PHILADELPHIA 3, Pa., U.S.A.

Canadian Department of Defence Production,
c/o U.S. Army Ordnance District,
1580 East Grand Blvd.,
DETROIT 11, Mich., U.S.A.

Canadian Department of Defence Production,
HQ Los Angeles Contract Management
District,
United States Air Force,
Room 546, 1206 South Maple Avenue,
LOS ANGELES 15, Calif., U.S.A.

LONDON, ENGLAND

Canadian Department of Defence Production,
1 Grosvenor Square,
LONDON W. 1, England.

Sub-Offices

Canadian Department of Defence Production,
1 rue Chanez,
PARIS 16e, France.

Canadian Department of Defence Production,
54 KOBLENZ-PFAFFENDORF,
Emserstrasse 21,
Federal Republic of Germany.

Canadian Department of Defence Production,
c/o Scottish Aviation Limited,
PRESTWICK AIRPORT,
Ayrshire, Scotland.

OFFICE OF DDP REPRESENTATIVE
TO THE NORTH ATLANTIC
COUNCIL OTAN-NATO,
Place du Maréchal de Lattre de Tassigny,
PARIS 16e, France.

DEFENCE PRODUCTION ATTACHÉ c/o Canadian Embassy,
35 avenue Montaigne,
PARIS 8e, France.

DEFENCE PRODUCTION ATTACHÉ-
CANADIAN REPRESENTATIVE TO
THE EUROPEAN ORGANIZATION
FOR DIRECTION AND CONTROL
F-104G c/o Canadian Embassy,
Zitelmannstrasse 22,
BONN, Federal Republic of Germany.

Appendix F

Statistics of Defence Contracts and Expenditures

The statistical tables in this Appendix contain information for calendar years 1961 and 1962 on contracting and related spending in connection with the Canadian defence procurement and construction programme and with foreign government prime defence contracts placed through Canadian Government agencies. These statistics measure the value of contracts as they are issued to contractors and suppliers and the value of payments as they are made to them.

The net value of contracts issued, as shown in these tables, includes the value of amendments which increased or decreased commitments under existing contracts, as well as the value of new contracts. In some cases, therefore, credit net values are shown because decreasing amendments to contracts placed in earlier years have exceeded the value of new contracts and increasing amendments issued.

Some of the figures for 1961 have been revised since they were published in the preceding issue of the Annual Report of the Department. Also, the totals shown do not always equal the sum of the component figures because of rounding the figures to the nearest thousand dollars.

The tables are grouped in pairs, with the first "a" containing data on the net value of contracts issued and the second "b" containing the value of expenditures against these contracts and against similar contracts placed in earlier years.

Tables 1-a and 1-b contain summary statistics relating to all contracts issued by the Department of Defence Production and its associated Crown companies, Defence Construction (1951) Limited and Canadian Commercial Corporation, with the exception of those involving payments out of the Defence Production Revolving Fund. Both contract and expenditure data are broken down by the various sources that requisition and pay for the goods or services involved.

Tables 2-a and 2-b contain statistics related to contracting by the Department of Defence Production and Defence Construction (1951) Limited on behalf of the Department of National Defence. Payments against these contracts are made from funds appropriated by Parliament for the Department of National Defence. The figures in these tables are broken down by defence programmes (as defined below) and the country in which the prime contractor is located (based on the address to which the contract is sent). The data contained in Tables 2-a and 2-b are similar to those contained in Tables 1-a and 1-b to Tables 4-a and 4-b in previous Annual Reports of the Department.

Tables 3-a and 3-b provide data relating to prime defence contracts placed in Canada by foreign governments through Canadian Government agencies, such as Canadian Commercial Corporation. The Department of Defence Production issues most of the contracts for Canadian Commercial Corporation.

Tables 4-a and 4-b relate to certain activities in support of Canadian defence industry that are financed from Defence Production Parliamentary appropriations.

Definitions of the Defence Programmes

The general concept involved in this defence programme classification is that of relating all procurement, as far as possible, to a readily identifiable military end-item, such as an aircraft, a ship, an electronic device, a gun, a type of ammunition, an item of clothing, etc. Thus a particular programme includes, in addition to the end-item, those components or parts that become an integral part of the end-item, as well as associated services such as design and development, installation, maintenance and repair and overhaul.

AIRCRAFT: This programme includes complete aircraft and items to be physically incorporated in complete aircraft, such as airframes, engines, propellers, navigational and flight instruments, electrical systems and their components. The repair and overhaul of aircraft is also included. Excluded are accessories such as armament and communication equipment, photographic equipment, training devices and ground support equipment.

ARMAMENT: This programme includes weapons such as small arms, guns, howitzers and their components; light, medium and heavy ammunition of all types, including mines, depth charges and torpedoes; rockets and missiles and their launchers; and explosives and certain defence chemicals. Electronic fire controls are not included.

ELECTRONICS: Electronics and communication equipment of all types are in this programme, including telephone, telegraph, radio and radar equipment. Underwater sound equipment, fire control equipment and flight and tactics simulators are also included. Development, maintenance, management and transportation services associated with the procurement of electronic and communication equipment are in this programme. (This programme was formerly identified as the Electronics and Communication Equipment programme.)

SHIPS: This programme includes destroyer escorts, frigates, minesweepers, aircraft carriers, and other floating equipment, and ship components such as hulls and superstructures, propulsion machinery, boilers, condensers, heating and electrical systems. Reconversion, refit and repair of ships are also included. Armament and electronic gear are excluded.

TANK-AUTOMOTIVE: Included in this programme are tanks and vehicles of both armoured and non-armoured types. Cars, trucks and buses and their components, such as tires and tubes, are included. Excluded are armament and electronic equipment.

FUELS AND LUBRICANTS: This programme includes petroleum, gas, coal and coke, and their products, principally aviation turbine fuel and gasoline, motor vehicle gasoline, and heating fuels.

CLOTHING AND EQUIPAGE: All items of personal clothing, including footwear, and of personal equipment, such as mess kits and steel helmets, are in this programme.

CONSTRUCTION: This programme includes all construction contracts for building structures, runways, etc., as well as for consultant services, repairs and maintenance. Most of these contracts are placed by Defence Construction (1951) Limited.

Table 1-a.—Net Value of All Contracts Issued

Sources for which Contracts Issued	1961	1962
	\$000	\$000
Department of National Defence	528,773	536,666
Department of Defence Production:		
Votes in Support of Defence Industry	15,894	9,387
Foreign Governments:		
United States	97,516	202,887
Britain	2,053	1,147
Federal Republic of Germany	—	14,333
Other Governments	1,006	7,253
Canadian External Aid	9,855	24,981
Other	5,611	985
Total	660,707	797,639

Table 1-b.—Expenditures Against All Contracts Issued

Sources Paying the Contracts	1961	1962
	\$000	\$000
Department of National Defence	622,535	606,374
Department of Defence Production:		
Votes in Support of Defence Industry	7,544	8,971
Foreign Governments:		
United States	93,181	127,747
Britain	2,374	1,213
Federal Republic of Germany	10	4,361
Other Governments	799	2,527
Canadian External Aid	11,420	9,214
Other	4,438	4,224
Total	742,301	764,631

Appendix F—Continued

Table 2-a.—Net Value of Canadian Government Defence Contracts

1962

Programme	Canada	United States	Britain	France	Other Countries	Total
	\$000	\$000	\$000	\$000	\$000	\$000
Aircraft	186,734	16,447	1,855	3	212	205,252
Armament	14,517	3,120	250	7,576	4	25,466
Electronics	73,033	8,500	671	382	200	82,785
Ships	27,351	253	185	—	51	27,841
Tank-automotive	7,182	804	671	45	221	8,924
Fuels and lubricants	38,057	11	163	85	289	38,605
Clothing and equipage	12,712	8	80	5	8	12,814
Construction	38,125	—	—	—	1,318	39,443
Other	88,811	2,973	1,297	1,351	1,104	95,536
Total	486,523	32,117	5,171	9,446	3,408	536,666

1961

Programme	Canada	United States	Britain	Other Countries	Total
	\$000	\$000	\$000	\$000	\$000
Aircraft	110,371	1,322	940	60	112,693
Armament	8,028	2,676	1,014	94	11,812
Electronics	110,513	9,729	1,510	841	122,593
Ships	25,374	892	319	(a)	26,585
Tank-automotive	10,227	16	363	375	10,981
Fuels and lubricants	48,579	10	117	264	48,972
Clothing and equipage	11,772	59	58	8	11,897
Construction	89,815	—	—	857	90,671
Other	87,055	2,043	701	2,771	92,569
Total	501,734	16,747	5,022	5,270	528,773

(a) Less than \$500.

Appendix F—Continued

Table 2-b.—Expenditures Against Canadian Government Defence Contracts

1962

Programme	Canada	United States	Britain	France	Other Countries	Total
	\$000	\$000	\$000	\$000	\$000	\$000
Aircraft	171,536	17,702	1,577	3	82	190,900
Armament	13,163	1,779	990	12	4	15,948
Electronics	97,127	14,327	1,501	382	200	113,537
Ships	52,347	741	414	—	—	53,503
Tank-automotive	8,133	826	563	45	250	9,818
Fuels and lubricants	37,261	8	73	85	284	37,711
Clothing and equipage	10,615	65	74	5	4	10,763
Construction	79,646	—	—	—	1,155	80,802
Other	87,782	2,207	959	1,351	1,093	93,393
Total	557,612	37,655	6,152	1,883	3,072	606,374

1961

Programme	Canada	United States	Britain	Other Countries	Total
	\$000	\$000	\$000	\$000	\$000
Aircraft	193,953	24,742	2,988	70	221,751
Armament	17,028	3,039	2,896	94	23,057
Electronics	101,452	20,106	1,439	841	123,838
Ships	44,835	763	380	—	45,978
Tank-automotive	7,590	43	403	375	8,411
Fuels and lubricants	37,695	8	88	256	38,048
Clothing and equipage	7,049	3	46	6	7,103
Construction	67,123	—	—	17 cr	67,106
Other	80,470	3,138	850	2,784	87,242
Total	557,195	51,842	9,090	4,408	622,535

Appendix F—Continued

**Table 3-a.—Net Value of Foreign Government Prime Contracts
Placed in Canada**

1962

Programme	United States	Britain	West Germany	Other Countries	Total
	\$000	\$000	\$000	\$000	\$000
Aircraft	149,708	(a)	1	102	149,811
Armament	6,916	446	10	357	7,730
Electronics	37,581	232	14,280	6,438	58,531
Fuels and lubricants	2,234	—	—	—	2,234
Construction	3,435	—	—	—	3,435
Other	3,012	468	42	356	3,879
Total	202,887	1,147	14,333	7,253	225,620

(a) Less than \$500.

1961

Programme	United States	Britain	Other Countries	Total
	\$000	\$000	\$000	\$000
Aircraft	32,206	33	333	32,573
Armament	6,249	110	156 cr	6,203
Electronics	32,423	1,326	600	34,350
Fuels and lubricants	8,615	—	—	8,615
Construction	15,067	—	—	15,067
Other	2,954	584	228	3,766
Total	97,516	2,053	1,006	100,574

Appendix F—Continued

**Table 3-b.—Expenditures Against Foreign Government Prime Contracts
Placed in Canada**

1962

Programme	United States	Britain	West Germany	Other Countries	Total
	\$000	\$000	\$000	\$000	\$000
Aircraft	71,817	16	1	200	72,035
Armament	5,820	265	10	368	6,462
Electronics	33,677	471	11	463	34,624
Fuels and lubricants	4,626	—	—	—	4,626
Construction	9,275	—	—	—	9,275
Other	2,531	461	4,339	1,496	8,826
Total	127,747	1,213	4,361	2,527	135,849

1961

Programme	United States	Britain	Other Countries	Total
	\$000	\$000	\$000	\$000
Aircraft	35,858	—	247	36,105
Armament	3,082	1,547	152	4,782
Electronics	32,908	251	239	33,398
Fuels and lubricants	6,488	—	—	6,488
Construction	13,044	—	—	13,044
Other	1,802	576	169	2,547
Total	93,181	2,374	809	96,364

Appendix F—Concluded

Table 4-a.—Net Value of Contracts to Assist Canadian Defence Industry

Category of Assistance	1961	1962
	\$000	\$000
Care, maintenance and custody of Crown owned standby defence assets	204	293
Capital assistance	116	92
Establishment of competitive production capacity through absorbing certain preproduction and tooling costs	1,370	245
Establishment of qualified sources for the production of component parts and materials	360	291
To sustain research and development capability in Canadian industry in order to assist the Canada-United States development and production sharing programme	13,844	8,466
Total	15,895	9,387

Table 4-b.—Expenditures Against Contracts to Assist Canadian Defence Industry

Category of Assistance	1961	1962
	\$000	\$000
Care, maintenance and custody of Crown owned standby defence assets	806	1,056
Capital assistance	923	153
Establishment of competitive production capacity through absorbing certain preproduction and tooling costs	678	703
Establishment of qualified sources for the production of component parts and materials	499	279
To sustain research and development capability in Canadian industry in order to assist the Canada-United States development and production sharing programme	4,637	6,781
Total	7,544	8,971

Appendix G

Report to the Minister on the Audit of the Accounts of the Department

for the year ended March 31, 1962

OTTAWA, November 1, 1962.

The Honourable Raymond O'Hurley,
Minister of Defence Production,
Ottawa, Canada.

SIR,

An examination having been made of the accounts maintained and the financial statements prepared by the Department of Defence Production for the year ended March 31, 1962, I now report that in my opinion,

- (a) proper books of account have been kept by the Department;
- (b) the financial statements of the Department
 - (i) were prepared on a basis consistent with that of the preceding year and are in agreement with the books of account;
 - (ii) in the case of the balance sheet, give a true and fair view of the state of the Department's affairs as at the end of the financial year;
 - (iii) in the cases of the statements of expenditure and of receipts and the summary of transactions in surplus arising from trading operations, give a true and fair view of the operations of the Department for the financial year; and
- (c) the transactions of the Department that have come under my notice have been within the powers of the Department under the Defence Production Act and any other Act applicable to the Department.

In accordance with established governmental practice, the Crown owned capital assets for which the Department is accountable are carried on the balance sheet at cost, without showing any deduction with respect to depreciation.

Yours faithfully,
A. M. HENDERSON
Auditor General.

Balance Sheet as at March 31, 1962

ASSETS		GENERAL ACCOUNT		LIABILITIES AND GOVERNMENT EQUITY	
Cash		\$	409,362	Accounts payable	\$ 343,035
Accounts receivable—				Sundry liabilities	401,606
Purchasers of Crown plants and				Equity of Government of Canada, Exhibit II	229,261,456
equipment	\$ 10,621,597				
Other	13,913		10,635,510		
Advances—					
Crown agencies	17,500,000				
Other	13,784		17,513,784		
Investments, at cost—					
Polymer Corporation Limited,					
capital stock	30,000,000				
Township of Toronto, 3% debentures 1962-71	265,144				
Defence Construction (1951) Limited, capital stock	30				
Canadian Arsenals Limited, capital stock	28		30,265,202		
Crown owned lands, buildings, machinery and equipment, at cost, including rehabilitation and installation costs—					
With contractors	54,864,565				
In warehouse	5,219,246		60,083,811		
Crown owned plants, at cost—					
Canadian Arsenals Limited	101,363,455				
Other	9,734,973		111,098,428		
			<u>\$ 230,006,097</u>		<u>\$ 230,006,097</u>

REVOLVING FUND

Accounts receivable	\$ 746,607	Accounts payable	\$ 1,525,906
Progress payments to suppliers	14,511,648	Progress payments from customers	730,485
Working capital advances	4,750,000	Equity of Government of Canada—	
Inventories, strategic materials, etc., at cost	13,563,559	Revolving Fund, as provided by Defence	
		Production Act, Section 16 (authorized	\$27,296,568
		\$100,000,000), net expenditure	
		Inventory taken over by Department at	
		inception	3,728,584
		Surplus arising from trading operations,	
		Exhibit V	290,271
			<hr/>
			31,315,423
			<hr/>
			\$33,571,814

In addition to the assets listed above, the Department has recorded in its books expenditure in the amount of \$252,298.917 for production tooling, dies and jigs, title to which is vested in the Crown.

Approved on behalf of the Department:

G. W. HUNTER
Deputy Minister

G. F. WEVILL
Comptroller

Certified in accordance with my report dated November 1, 1962, to the Minister of Defence Production.

A. M. HENDERSON
Auditor General

Summary of Transactions in Equity of Government of Canada Account

for the year ended March 31, 1962

Balance at April 1, 1961	\$ 234,831,770	
<i>Additions:</i>		
Assets acquired from appropriations	519,622	
Transfer of assets from other departments and Crown agencies	2,592,197	
Increase in working capital advance to the Ca- nadian Commercial Corporation (\$5,000,000 less \$2,000,000 refund per Exhibit IV)	3,000,000	
	<hr/>	\$ 240,943,589
<i>Reductions:</i>		
Receipts from sales, etc., Exhibit IV	1,501,159	
Transfer of surplus assets to Crown Assets Disposal Corporation	8,830,154	
Decrease in fixed assets in custody of Canadian Arsenals Limited	524,062	
Transfer of assets to other departments and Crown agencies	485,494	
Assets written off due to completion of contracts, dismantling, etc.	335,418	
Accounts receivable written off as authorized by Parliamentary Vote 710	5,846	
	<hr/>	11,682,133
Balance at March 31, 1962		<hr/> <hr/> \$ 229,261,456

Statement of Expenditure**for the year ended March 31, 1962**

Vote			
67	Departmental administration		
	Salaries	\$ 8,297,919	
	Living allowances	157,677	
	Travelling expenses	306,608	
	Office stationery, supplies and equip- ment	266,350	
	Telephones and telegrams	205,141	
	Professional and special services	110,981	
	Postage	62,464	
	Freight, express and cartage	13,170	
	Rental of office accommodation	2,277	
	Publication of departmental reports and other material	1,531	
	Sundries	70,919	
		<hr/>	\$ 9,495,037
68	Care, maintenance and custody of standby		
and	defence plants, buildings, machine tools		
690	and production tooling		877,016
69	Capital assistance		
and	Capital account—		
507	Construction, improvements and ac- quisition of land	627,227	
	Equipment	131,059	
	Establishment of production capacity	18,067	
	Income account—		
	Establishment of production capacity	933,644	
		<hr/>	1,709,997
70	Grants to municipalities in lieu of taxes		119,474
71	Establishment of qualified sources for pro- duction of component parts and ma- terials		
	Capital account	9,700	
	Income account	364,824	
		<hr/>	374,524

72 and 624	Sustainment of technological capability in Canadian industry		4,672,046
73	Defence Construction (1951) Limited— Administration		\$ 3,459,615
	Canadian Arsenals Limited—		
74 and 691	Administration and operation		3,169,725
75	Construction and improvements	\$ 28,455	
75	Equipment	262,092	
		<hr/>	290,547
Statutory			
	Minister of Defence Production—		
	Salary	15,000	
	Motor car allowance	2,000	
		<hr/>	17,000
	Refund of prior year's rental revenue		9,153
			<hr/>
	Total expenditure		<u><u>\$24,194,134</u></u>

Statement of Receipts**for the year ended March 31, 1962**

Receipts on Income Account—

Sales of surplus Crown assets	\$ 9,627,987	
Return on investments	3,924,658	
Rentals of buildings and equipment	278,778	
Refunds of previous years' expenditure	6,074	
Miscellaneous	5,357	
	<hr/>	\$13,842,854

Receipts on Capital Account—

Sales of plant and equipment by the Department	1,472,438	
Repayment of debentures	22,455	
Recoveries of advances and accounts receivable	6,266	
	<hr/>	
Total per Exhibit II	1,501,159	
Repayment of working capital advance, Canadian Commercial Corporation	2,000,000	
	<hr/>	3,501,159
		<hr/>
		\$17,344,013
		<hr/> <hr/>

Summary of Transactions in Surplus Arising from Trading Operations, Revolving Fund

for the year ended March 31, 1962

Balance at April 1, 1961		\$ 184,975
--------------------------------	--	------------

Additions:

Sales, less cost of materials sold—

Cloth, Sales	\$ 5,162	
Cloth, Cost of Sales	3,361	
	<hr/>	1,801
Strategic materials, Sales	2,319,515	
Strategic materials, Cost of Sales	2,078,763	
	<hr/>	240,752
Munitions and components, Sales	903,344	
Munitions and components, Cost of Sales	903,344	
	<hr/>
Research and development, Sales	290,714	
Research and development, Cost of Sales	290,714	
	<hr/>
Shipbuilding components, Sales	79,898	
Shipbuilding components, Cost of Sales	79,898	
	<hr/>
		<hr/>
		427,528

Reductions:

Warehousing and other expenses—Cloth

Wages	5,301	
Rent	121,806	
Sundries	4,593	
	<hr/>	
	131,700	
Warehousing expenses—strategic materials ..	5,557	
	<hr/>	137,257

Balance at March 31, 1962		\$ 290,271
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CANADA

REPORT

of the

DEPARTMENT OF

DEFENCE PRODUCTION

January 1 to December 31, 1963

OTTAWA

THIRTEENTH REPORT

of the

DEPARTMENT

of

DEFENCE

PRODUCTION

1963

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Hon. C. M. DRURY, P.C., C.B.E., D.S.O., Q.C., M.P., *Minister*

G. W. HUNTER, *Deputy Minister*

ROGER DUHAMEL, F.R.S.C.
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Ottawa, Canada
1964

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*To His Excellency General The Right Honourable Georges P. Vanier,
DSO, MC, CD, Governor-General and Commander-in-Chief of
Canada.*

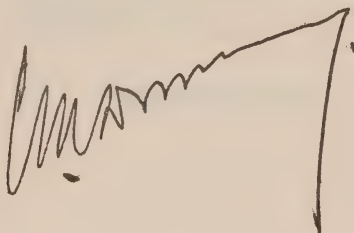
MARCH 31, 1964

MAY IT PLEASE YOUR EXCELLENCY:

I have the honour to submit to Your Excellency the Report of the Department of Defence Production for the calendar year 1963.

A summary of the operations and services rendered by this Department, under their respective headings, is laid before Your Excellency.

Respectfully submitted,

A handwritten signature in dark ink, consisting of a series of loops and a long, sweeping horizontal stroke that ends in a vertical line.

Minister of Defence Production.

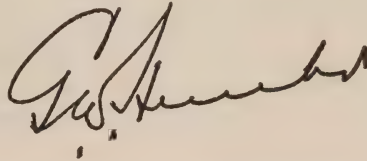
MARCH 31, 1964

The Honourable C. M. Drury, P.C., C.B.E., D.S.O., Q.C., M.P.,
Minister of Defence Production,
Ottawa, Ontario.

DEAR SIR:

I have the honour to submit the Report of the Department of
Defence Production, which covers the operations and services rendered
during the calendar year 1963.

Yours faithfully,

A handwritten signature in dark ink, appearing to be 'G. H. ...', written in a cursive style.

Deputy Minister.

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Responsibilities and Organization

UNDER the provisions of the Defence Production Act¹, by which the Department of Defence Production was established on April 1, 1951, the Department has:

- (1) exclusive authority to procure the goods and services required by the Department of National Defence, and
- (2) the responsibility to ensure that the necessary production capacity and materials are available to support the defence production program.

The Department also has responsibility for defence development and production sharing with the United States, for defence production export activities with other Allied countries, and for armament co-operation within NATO. It co-operates with other Government departments to promote and strengthen the research capability of Canadian defence industry.

Canadian Commercial Corporation utilizes the services of the Department to assist it in obtaining foreign defence business for Canadian industry. The Department does the procurement for the Corporation, which is a Crown company primarily responsible for the purchase in Canada of defence goods required by other governments and of supplies needed to meet Canadian commitments under the Colombo Plan and other international agreements.

The organization of the Department, which had 1,611 employees on strength at the end of 1963, is essentially as follows:

Five production branches responsible for obtaining defence supplies requiring specialized production facilities and for the direct implementation of the defence production sharing program and other overseas exports of military equipment. These were the Aircraft, Armament, Electronics, Machine Tool and Shipbuilding Branches.

A General Purchasing Branch, which included district purchasing offices in fourteen cities across Canada, to procure the supplies and services not normally requiring special production facilities.

An office in Washington, U.S.A., maintained liaison with various United States Government agencies, and was actively involved with the defence production sharing program, handled procurement from the United States Armed Services, and directed a sub-office at Wright-Patterson Air Force Base, Ohio. Eight production sharing liaison offices are located in the United States.

An office in London, England, conducted procurement activity in Britain. A small sub-office located at Prestwick Airport, Scotland, expedited certain repair and overhaul activities. Sub-offices in Paris, France, and Koblenz, Federal Republic of Germany, handled the normal procurement in those countries.

¹ Revised Statutes of Canada 1952, Chapter 62, as amended.

The International Programs Branch co-ordinated the Canada-United States program as well as activities associated with NATO research, development and production programs and other overseas defence exports.

Seven advisory and service branches provided supporting activities to the Department's main procurement responsibility. These were the Administration, Comptroller's, Economics and Statistics, Financial Adviser's, Industrial Security, Legal and Secretary's Branches.

An Emergency Supply Planning Branch continued to work on plans and preparations for bringing a War Supplies Agency into immediate existence should a nuclear war occur.

The Management Control Group was established late in the year to develop long-term plans for administration of the Department and exercise program control on behalf of the Deputy Minister.

Two defence production attachés were maintained in Europe. One was located in Bonn, Federal Republic of Germany, the other at the Canadian Embassy in Paris. They assisted Canadian industry to participate in European defence requirements.

The Department was represented by two members on the Canadian Delegation to the North Atlantic Council in Paris, France. These members were responsible for liaison with other national delegations and with the NATO international staff, and for making the Canadian viewpoint known on defence production matters of common concern to several members of the Alliance. They represented Canada on the NATO Armaments Committee which, in turn, controls a wide variety of expert working groups.

Military construction is the prime responsibility of Defence Construction (1951) Limited, a Crown company reporting to Parliament through the Minister of Defence Production.

In addition to Canadian Commercial Corporation and Defence Construction (1951) Limited, three other Crown companies report to Parliament through the Minister of Defence Production. These are Canadian Arsenals Limited, Crown Assets Disposal Corporation and Polymer Corporation Limited. An account of the activities of the five associated Crown agencies is contained in their respective Annual Reports.

Implementation of Recommendations by the Royal Commission on Government Organization

The Commission reported that "The Canadian Commercial Corporation is essentially a convenience to other governments (foreign). Its operations are integral to those of the Purchasing Department with which it is associated. While its continued existence as a legal entity may be useful, no purpose is served by a separate management and staff." This recommendation was implemented in November 1963 and the management and staff have been integrated with the Department of Defence Production. The legal entity of the Corporation has been maintained.

In August 1963, in accordance with another recommendation of the Commission, the control and supervision of the following units of Public Printing and

Stationery were transferred from that department to Department of Defence Production: the Procurement Purchasing and Stores Branch, the Production Branch and the supporting services in the Secretary's Branch, the Administration Services Branch and the Financial Services Branch. A pilot program of integration, for the Branches other than the Printing Bureau, was outlined and is being put into effect.

The Department is carrying out studies in respect to other recommendations of the Commission dealing with the integration in the Department of purchasing, supply and warehousing activities of departments other than the Department of National Defence.

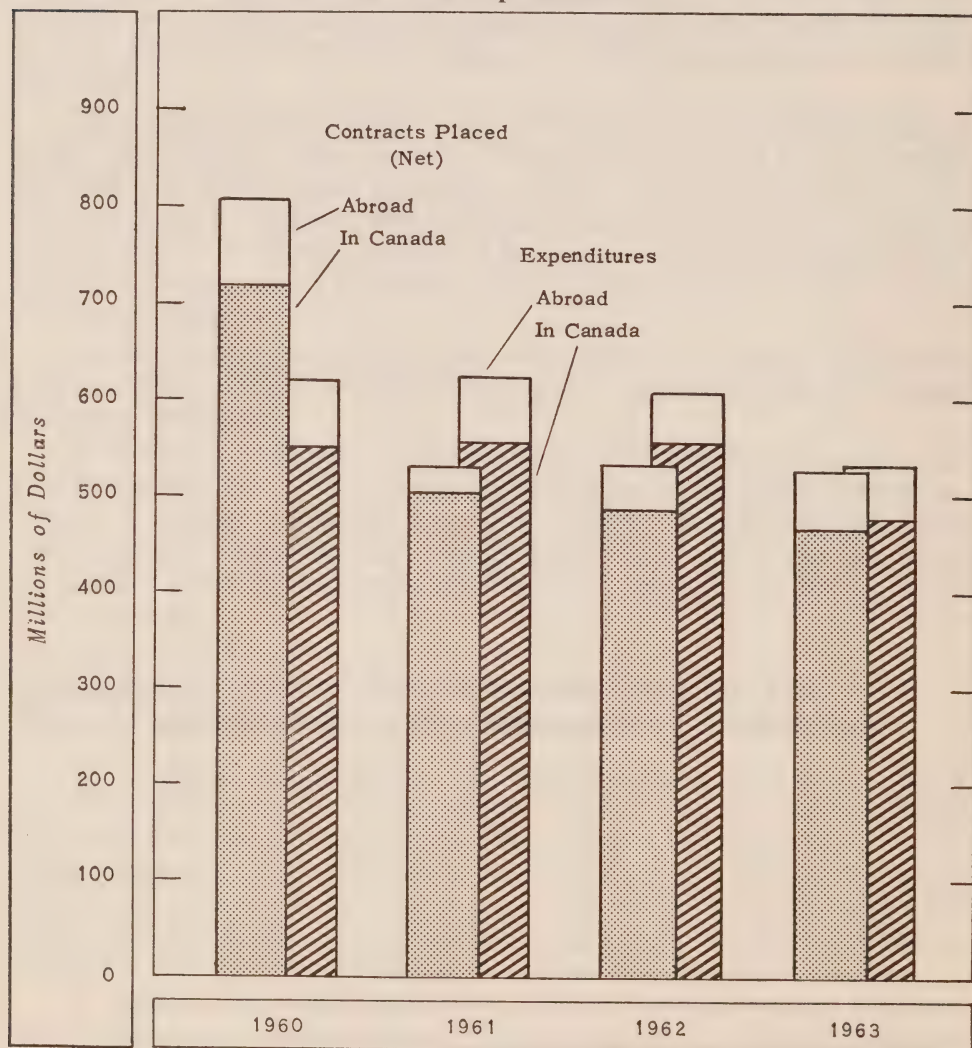
Production and Procurement

Defence Contracting—1963

CONTRACTS having a total net value of \$682.0 million were issued in 1963, a decrease of 14.5 per cent from the total of \$797.6 million in the previous year. The net value of contracts is the total of new contracts issued as well as amendments of purchases that increased or decreased the value of existing contracts.

The largest group of contracts, having a net value of \$522.3 million, was issued for the Department of National Defence. This is 2.7 per cent less than the value of such Canadian Government defence contracts issued in 1962.

Contracts Placed on Behalf of the Department of National Defence and Related Expenditures



Foreign government defence (and a small amount of non-defence) prime contracts placed in Canada through Canadian Government agencies totalled \$135.2 million last year, of which \$96.9 million was for the United States, \$16.4 million for Australia, \$12.5 million for India, \$3.3 million for Italy, and \$1.4 million for Britain. The corresponding value of government prime contracts of other nations placed in Canada in the previous year was \$225.6 million.

Contracts issued against this Department's Votes to assist Canadian defence industry had a net value of \$11.3 million in 1963, compared with \$9.4 million in the preceding year.

In addition to the above groups of contracts, a total of almost \$11.6 million was issued for Canadian external aid and \$1.5 million for a miscellany of other purposes.

These figures, and those contained in Appendix F of this Report, relate only to prime contracts awarded by the Department of Defence Production and its associated Crown companies, Canadian Commercial Corporation and Defence Construction (1951) Limited. They do not include prime contracts placed directly with Canadian contractors by foreign governments and subcontracts placed in Canada by United States and other foreign defence contractors. Further reference to these direct prime contracts and subcontracts, which are reported to the Department by Canadian companies, is contained in the sections of this Report covering the defence production sharing program and Overseas defence exports.

Aircraft

The requirements of the Department of National Defence for aircraft, aircraft equipment and related services resulted in the placement of contracts by the Branch in 1963 having a net value of \$180.1 million. Contracts placed on behalf of foreign governments amounted to \$56.4 million. Departmental funds in the amount of \$23.1 million were committed to assist Canadian industry with the development, pre-production engineering and qualification of new products.

Production of the CF 104 super Starfighter aircraft for the Royal Canadian Air Force was completed during the year and deliveries of F104G aircraft for the Canada/U.S. Mutual Aid program commenced. A total of 140 F104G aircraft, together with ground support equipment and spares are being manufactured in Canada for the latter program. The production in Canada of equipment for installation in these aircraft, including inertial navigation systems, position and homing indicators, automatic flight control systems and pyrotechnics was continued throughout the year and showed a satisfactory domestic content.

Twenty-two CF 104D trainer aircraft were delivered to the Royal Canadian Air Force and a contract for an additional 16 aircraft of this type was placed.

In December the first of 190 CT-114 TUTOR primary jet trainer aircraft was delivered to the Royal Canadian Air Force. Development of the prototype CT-114R advanced systems trainer was completed during the year and together with the prototype CT-114 TUTOR was demonstrated in several NATO countries.

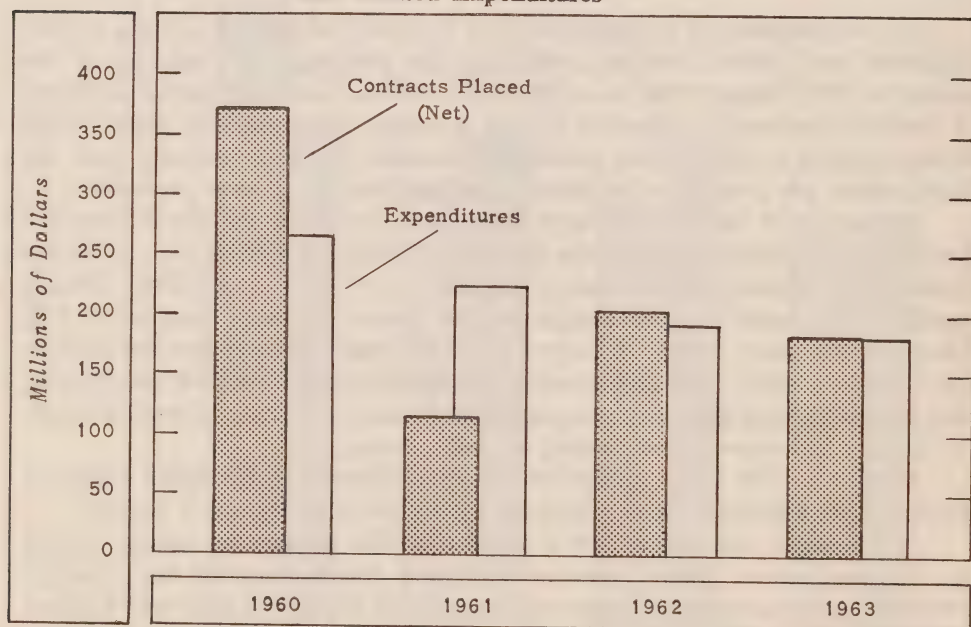
Fifty-four Caribou I aircraft were delivered to the U.S. Army during the period. Two additional orders for 34 Caribou I aircraft were received from the Governments of India and Australia.

Four CHSS-2 (Sikorsky) helicopters were delivered to the Royal Canadian Navy for use in the anti-submarine warfare role. A further quantity of five of these helicopters which will be assembled in Canada are scheduled for delivery early in 1964. An order was placed for 12 Vertol CH-113A heavy helicopters for operation by the Canadian Army as troop and equipment transports.

Production of the J79 turbo-jet engine for the CF-104 and F-104G aircraft was maintained throughout the year with a total of 134 engines produced. Qualification tests of the Canadian produced J85 engine were completed, and deliveries of this engine for the CT-114 TUTOR aircraft commenced on schedule. Further orders were placed for a total of 61 T58 engines for installation in the CHSS (Sikorsky) helicopter for the Royal Canadian Navy and the Vertol CH-113A helicopters for the Canadian Army.

Development and production sharing activities were accelerated during the year. The Branch arranged for the presentation of "Procurement Symposia" in Canada by several major United States defence contractors and, together with representatives of Canadian industry, Branch personnel visited a number of United States firms to brief them on the capabilities of the Canadian aircraft industry. The Branch participated in several NATO Working Groups and, in conjunction with other Branches, took part in bilateral discussions on research and development projects with the British, French and German Governments.

**Contracts Placed by the Aircraft Branch
on behalf of the Department of National Defence
and Related Expenditures**



Nine shared development projects involving Crown assistance were under contract and several others are being considered. Interest in the PT 6 turbo-shaft engine, which has completed its 150 hour qualification test, has continued and

many preproduction engines have been made available on loan to United States fixed and rotary wing aircraft manufacturers. Following a feasibility study, cost sharing arrangements were completed with the British Government for the development and evaluation trials of the CL 89 Surveillance Drone. Production of a prototype quantity of the Caribou II turbine powered aircraft for evaluation by the United States Army proceeded under a cost sharing arrangement between the United States Army, the Canadian contractor and this Department. The United States Navy continued supporting the development of a Canadian 600 h.p. stationary gas turbine engine for small marine craft and dockyard application. A development contract for a Tilt-Wing Deflected Slipstream Vertical Takeoff and Landing aircraft aimed at satisfying anticipated United States Tripartite and NATO requirements was placed in mid-year. Arrangements were completed for the development, design and construction in Canada of a 180 ton prototype hydrofoil ship (FHE) for the Royal Canadian Navy.

The requirements of the Department of National Defence for aircraft repair and overhaul resulted in the placement of 246 contracts valued at \$68.4 million. The replacement of older type aircraft by smaller quantities of modern high performance aircraft for the Royal Canadian Air Force and the Royal Canadian Navy resulted in decrease of activities on repair and overhaul.

Armament

Contracting for Canadian defence requirements for weapons and ammunition amounted to \$11.9 million, a decrease from the amount of \$23.5 million the previous year.

Among the major items under production in Canada for the Canadian Armed Services are 105 mm tank ammunition, smoke grenades, practice bombs, 7.62 mm rifle ammunition, underwater sound signals, and torpedoes. Deliveries continued during the year on SSII and ENTAC missile systems from France. Present requirements on a range of pyrotechnic stores, 7.62 mm blank and tracer ammunition, and several types of 3"70 calibre ammunition for naval guns were met.

Contracts amounting \$15.0 million were received by Canadian firms for United States armament requirements such as small arms ammunition, mines, artillery fuzes, missile casings, propellants and explosives.

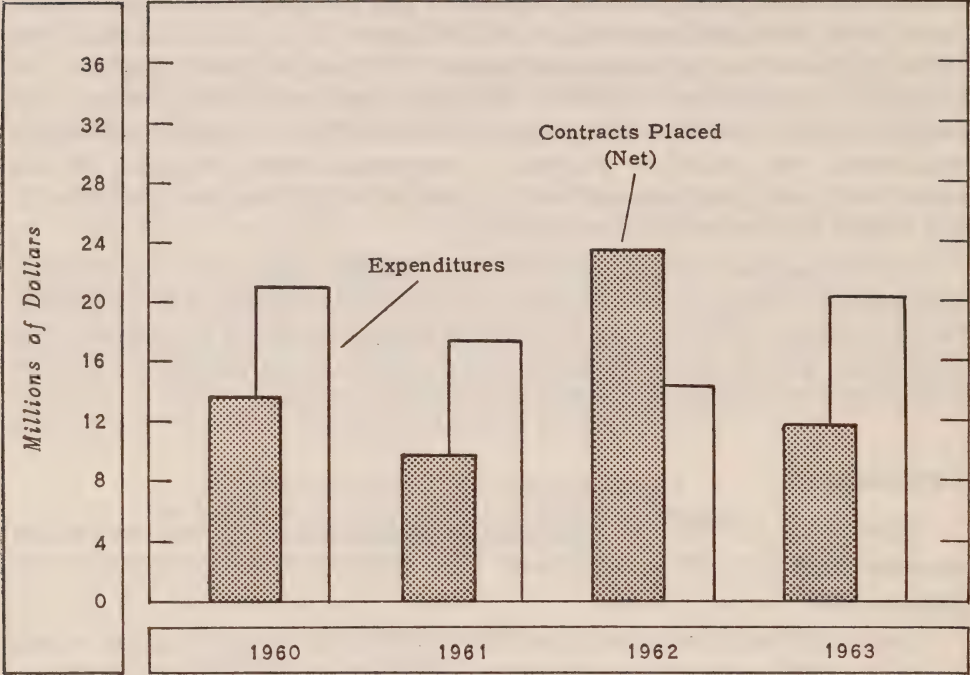
Canadian funding continues to support armament development programmes with export potential.

In the space field the Branch supported the establishment by industry of a new rocket propellant facility in Winnipeg and is continuing its support of the Black Brant atmospheric research rockets.

In NATO Working Groups the Branch participation included attendance at meetings on Internal Ballistics, Propellants and Explosives, Landmine Warfare, Protection against NBC Warfare, Optical Instruments, the Mark 44 Anti-Submarine Torpedo, and the M72 light weight anti-tank weapon. In addition, orders have also been placed in Canada for optical sighting instruments.

Interest in a number of Canadian defence products was strengthened as a result of Branch participation in bilateral trade discussions with Britain, the Federal Republic of Germany, and France.

**Contracts Placed by the Armament Branch
on behalf of the Department of National Defence
and Related Expenditures**



Electronics

During 1963 contracts valued at \$92.3 million were placed by the Electronics Branch for Canadian defence requirements, and \$39.1 million for the defence requirements of other governments. In addition, subcontracts from external prime contractors were placed in Canada for \$29.4 million.

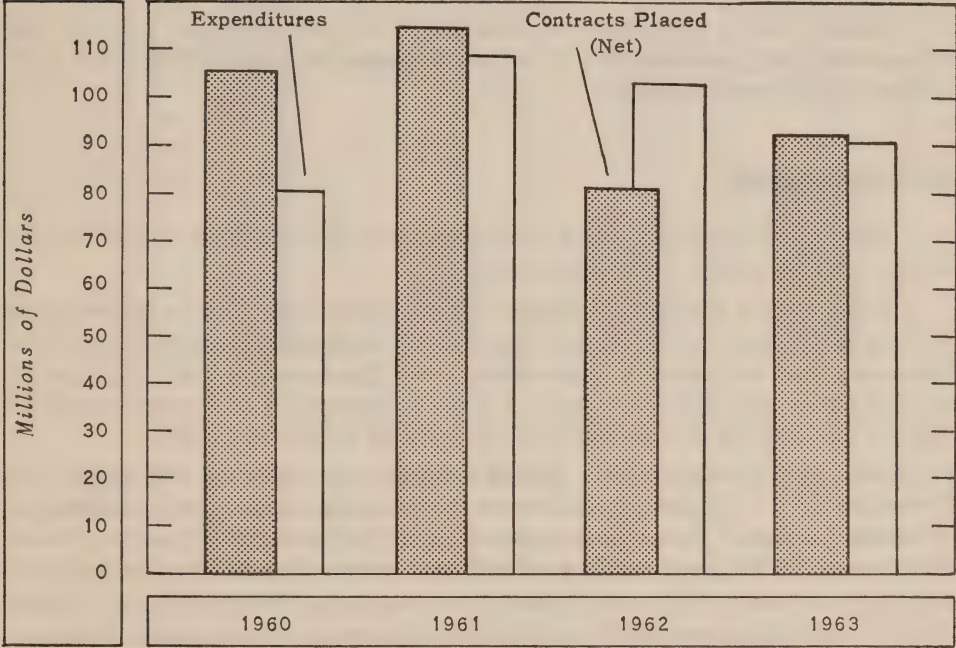
Actual expenditures in Canadian industry on defence electronics contracts amounted to \$90.6 million for Canada and \$47.3 million for other governments. A significant proportion of Department of National Defence expenditures was for the leasing of telecommunication circuits.

Expenditures against the Development Assistance Vote in support of the Canadian electronics industry have risen from \$1.9 million last year to \$4.4 million this year. In particular, airborne navigation equipment, computer ancillaries, and sonobuoys have been exported in quantity, while pilot quantities of beacons, microwave tubes and radio receivers have been sold abroad. Continued financial support to Canadian industry is being given for development work in airborne communications, navigation, anti-submarine warfare equipment for application to all types of aircraft, including helicopters, and tactical radio communications, the latter having sales potential in the United States, Canada and Britain.

The Vote to assist the establishment of Canadian sources continues to provide essential support to military electronic component manufacturers in Canada. This program is fundamental to achieving maximum Canadian content in defence procurement of electronic apparatus and systems and additionally helps to qualify Canadian contractors for export bidding. Expenditures in this area totalled \$472,000 in 1963 as compared to \$279,000 in 1962.

Canadian radar manufacturers are engaged mainly in the production of countermeasure equipment, counter mortar radars for the Canadian Army, and radomes. Studies are continuing on designs of future generations of radars as a result of co-operative development agreements with a number of our NATO allies.

**Contracts Placed by the Electronics Branch
on behalf of the Department of National Defence
and Related Expenditures**



In data processing, development work is proceeding primarily in the area of ancillary supplies, such as memory drums and tape readers. Export sales of these equipments have been encouraging.

Sonar production has continued for both Canadian and external requirements, and further development work is underway for its use with existing ships and future hydrofoils.

Additions to the Army's communication project were completed and production carried on for an emergency network requirement. Procurement planning for the inter-service communication improvement program is awaiting the results of a systems analysis. Communications development work and production for export sales continued.

Contracts have been placed for satellites to be used for work in connection with the International Satellites for Ionospheric Sounding Program. These will contain very advanced electronics systems designed in Canada.

Production of electronic systems for the RCAF CF104 program was largely completed and similar systems for the Mutual Aid Program F104G continued. Airborne communication, navigation and identification, and data recording equipment was produced at a steady rate, particularly for requirements outside Canada.

Ground TACAN commenced operations with the completion of the RCAF Control Tower installations, and installation of radar and communication equipments for use in the CADIN system progressed satisfactorily.

Hand-over of USAF-financed and manned Pinetree Sites to the RCAF was completed during the year. A greater proportion of maintenance requirements was assumed by the RCAF and there has been a corresponding decrease in commercial contractor support.

Branch officers participated in numerous NATO co-ordinating meetings and were actively engaged in fostering the sale of Canadian produced military equipment to various European countries.

Shipbuilding

During 1963 work progressed on the construction of warships, a tanker supply vessel, scientific vessels and auxiliary vessels.

In the Repeat Restigouche Programme of six destroyer escorts, following the delivery in October 1962 of the lead ship, HMCS Mackenzie, three additional ships were completed and joined the Fleet during 1963. They were HMCS Saskatchewan, HMCS Yukon and HMCS Qu'Appelle. Work is progressing on the remaining two ships of the class and it is expected that they will be completed in 1964.

The Tanker/Supply Vessel, HMCS Provider was completed and accepted in November 1963. A Hydrographic Survey Vessel for the Department of Mines and Technical Surveys, C.G.S. Hudson, was completed and undergoing final acceptance at year-end. Work progressed on schedule on construction of the Pacific Naval Laboratory Vessel. Other new construction included a Standard Diving Tender, Deperming Barges, Landing Floats, Diving Floats and a Tank Cleaning Barge.

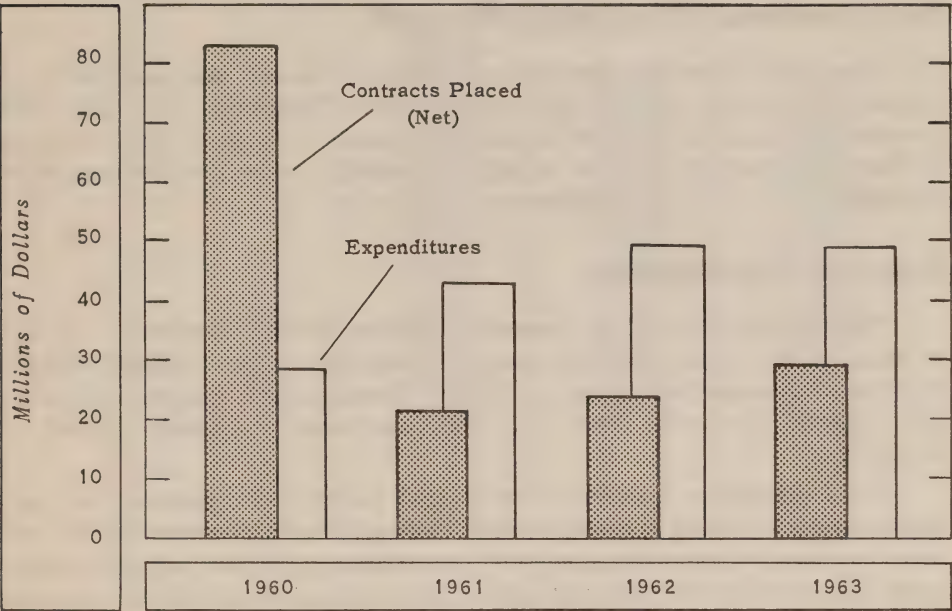
Procurement of three Oberon Submarines from the British Admiralty was initiated in November 1963. The first submarine will be launched on February 29, 1964 with completion date scheduled for the boats in September 1965, mid 1967 and mid 1968.

During 1963 the conversion of two destroyer escorts was completed. Conversion and modernization included equipping them with variable depth sonar, helicopter landing decks and modification in communications equipment and armament. Work commenced on the conversion and modernization of two further destroyer escorts.

Fleet Maintenance covered the placement of 74 contracts for repair and refit. These varied from emergency repairs to major refits and were valued at approximately \$8 million.

Contracts were awarded for ship components and related requirements. A major area of component procurement was represented by the equipment for the conversion and modernization program. Procurement in this field included a ship stabilizer system which represents the first of its kind to be produced in Canada.

**Contracts Placed by the Shipbuilding Branch
on behalf of the Department of National Defence
and Related Expenditures**



Deliveries were also taken during the year for variable depth sonar hoisting equipment for the R.C.N. and for a Commonwealth country.

The Naval Shipbuilding Central Procurement Agency, operating under the supervision of the Department of Defence Production, continued its responsibility for bulk purchasing, distribution and accounting associated with the supply of much of the equipment to be worked into vessels under construction.

Production sharing efforts of the Shipbuilding Branch were accelerated in 1963. Corresponding activities directed towards NATO countries were also accelerated. There was an increase in foreign contracts placed with Canadian industry in this field during the year.

Machine Tools and Gauges

Machine tools and allied equipment valued at \$632,000 were purchased in 1963, of which 76 per cent was required by the Department of National Defence to meet the requirements of the Armed Forces, and the remainder was purchased through Canadian Commercial Corporation on behalf of other governments.

The care, maintenance and custody of standby Crown owned defence assets involved the issuance of contracts amounting to \$110,253. These contracts covered

the cost of maintaining various facilities in standby condition or in storage, as well as the cost of transportation and the repair and overhaul of a number of machine tools.

The inspection and technical personnel of the Machine Tool Branch continued to be consulted by other branches of the Department for plant surveys, time study reports and other technical assistance involving machine tools and general production capabilities.

International Programs Branch

Late in the year an International Programs Branch was established to consolidate activities of Canadian Commercial Corporation with the staff co-ordination work of the United States and Overseas Division of the Department of Defence Production. The new Branch is to provide guidance and control of all the elements of Departmental defence export activities.

General Purchasing

The principal role of the General Purchasing Branch continued to be the procurement of a highly diversified range of goods and services normally available from the open competitive market. In 1963 the Branch issued through headquarters and regional purchasing units, 128,590 contractual documents valued at \$173,972,302.

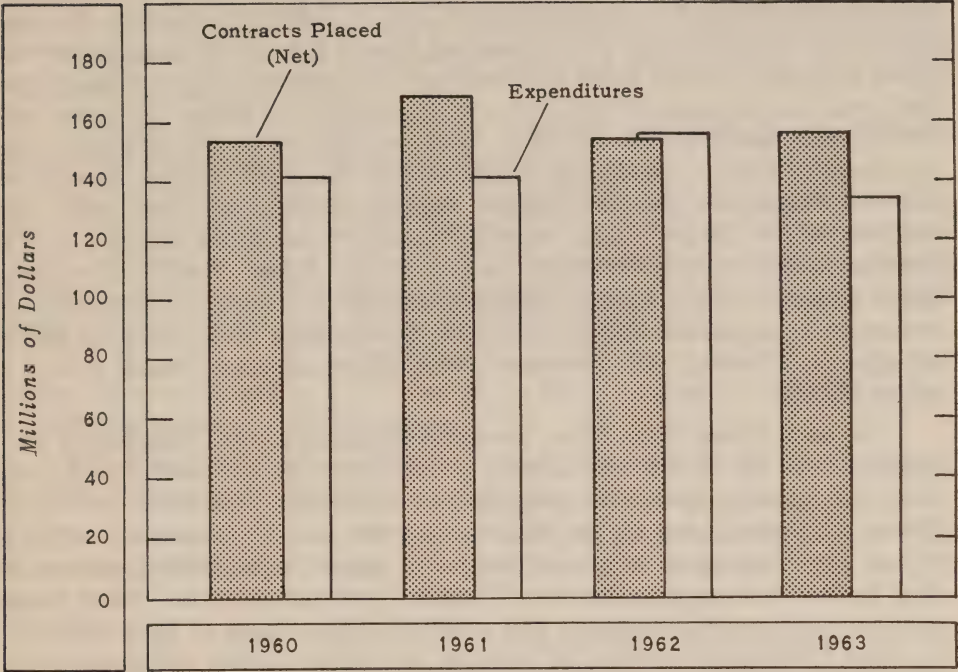
The headquarters segment of the Branch placed major contracts for such diverse items as heating and engine fuels; clothing; footwear; motor vehicles and parts; construction, excavating and road maintenance equipment; electrical equipment; canned and preserved foods; medical and dental equipment; chemicals; paint products; photographic equipment and supplies; furniture and appliances; paper products; containers; packaging supplies; cleaning equipment and supplies; hand tools; hardware, materials handling equipment; lamps; metal bars, sheets and shapes; fire-fighting, rescue and safety equipment; instruments and laboratory equipment; rope, cable, chain; food catering, and aerial surveys.

The Branch participated in the preparation and implementation of standards outlining the minimum acceptable facilities and controls to be met by firms in the drug industry wishing to participate in the supply of Government requirements. Emergency health and welfare supplies and many requirements in support of the national survival program were acquired, including anaesthetics, aluminum litters, hospital beds, blankets, portable X-ray units, portable decontaminating apparatus, parkas and insulated boots, rubber water storage tanks, sirens, and mapping.

External aid procurement was undertaken for India, Burma, Pakistan and a number of African countries. This involved such items as turbines, mining cars, paper, raw nickel, bleached sulphite pulp, fertilizers, herbicides, cranes, tabulating equipment, power plant equipment, motor trucks and steel towers. Under the World Food Program, milk, cheese and salted cod fish were procured for Trinidad, Tobago, and the Island of Bali; flour was acquired for Indonesia under the auspices of UNWRA; stoves and refrigerators were procured for UNICEF.

A number of research projects were undertaken during the year to improve purchasing performance including the extension of contract periods for clothing and textile purchases.

**Contracts Placed by the General Purchasing Branch
on behalf of the Department of National Defence
and Related Expenditures**



Fourteen district offices located across Canada purchased, from sources within their areas, goods and services required to support the daily activity of regional defence establishments. These district offices processed 113,074 contractual documents having a total value of \$55,941,985. In addition to their normal procurement functions, district purchasing agents participated in exercises, conferences and training sessions associated with the national survival program.

The use of standing offer agreements was greatly expanded to the point where over 5,000 individual arrangements have been made with vendors across the country to supply a wide variety of items, as and when required, for a specified period of time. This form of purchasing has been well received by both the Services and the trade.

Key officers of the Branch were active throughout the year in planning the organization and functions of various Branches identified with the Department of Industry and the proposed central purchasing agency. Late in the year arrangements were completed for the transfer of certain procurement functions and the staffs involved from the General Purchasing Branch to the appropriate new Branches being formed as part of the aforementioned re-organization.

Procurement by Offices Outside Canada

The Department maintains Purchasing offices in the United States, Britain, France and the Federal Republic of Germany. During 1963, these offices issued Departmental contracts valued at \$24.5 million as compared with \$15.8 million in 1962.

The main Overseas office, situated in London, England, issued Departmental contracts with British Government agencies such as Admiralty, Ministry of Aviation and the War Office, and with commercial firms in Britain. The largest contracts placed in Britain involved repair and overhaul of aircraft and other equipment for the Royal Canadian Air Force stationed in Europe and spares for tanks and ancillary equipments for the Canadian Army. Aircraft repair and overhaul work was expedited through a small sub-office located at Prestwick, Scotland. Sub-offices in Paris, France, and Koblenz, Federal Republic of Germany, both under the direction of the London office, procured normal requirements for No. 1 Air Division, RCAF, stationed in Europe and, to a lesser degree, other items required by the Canadian Armed Services both Overseas and in Canada. Continental procurement was carried out chiefly through the Governments of the countries where the offices are located. The Overseas offices placed contracts valued at \$11.1 million in 1963.

The main United States office, located in Washington, D.C., handled all procurement from the United States Armed Services. Most procurement from United States commercial sources was made by the appropriate head office branch in Ottawa. Contracts issued by the Washington office in 1963 amounted to \$13.4 million. The Washington office also maintained regular liaison with a number of other United States agencies, handled Canadian participation in the United States priorities and expediting systems and supplied various types of information to Canadian Government officials; for example, it provided regular information concerning United States mobilization planning for the Emergency Supply Planning Branch of the Department. Another major activity of the Washington office and the Department's personnel in other United States cities was the Production and Development Sharing Program. The Washington office continued to be responsible for a sub-office at Wright-Patterson Air Force Base, Ohio.

Defence Production and Development Sharing

DURING 1963 the Department maintained close liaison both in the United States and Canada with the United States Defense Department, the Armed Services, and industry on a variety of matters of importance to the Production and Development Sharing Program. While statistics of cross-border defence production sharing procurement show a cumulative balance in favour of Canada at the end of the year, the decline compared to 1962 in United States business to Canada and the increase of Canadian business in the United States indicate a trend toward a cross-border balance in the foreseeable future.

Research and development sharing programs sponsored by the Program exhibited a substantial growth rate during the year.

In 1963, \$142.0 million worth of United States defence production sharing business was placed with Canadian industry. This is a 44.2 per cent decrease from 1962, due largely to a lower level of United States contracting for Canadian aircraft programs. The total United States defence production sharing business in this country during the five years of the program is \$747.9 million.

On the other hand, Canadian defence production sharing business in the United States amounted to \$115.2 million in 1963, bringing the total for the five years of the program to \$678.2 million.

The Canadian defence production sharing business in the United States exceeded corresponding United States business in Canada by approximately \$10.0 million. The cumulative five year balance of production sharing business between Canada and the United States was \$69.7 million in favour of Canada at the end of 1963.

The level of defence production sharing activity between Canada and the United States is measured on the basis of definitions and statistical techniques approved by both countries. The classes of contracts included in the defence production sharing category are applied research and development, preproduction, production, licence agreements and technical assistance, installation (other than construction), and repair, overhaul and modification. The production sharing figures do not include contracts for "of-the-shelf" general procurement, construction, basic raw materials, fuels and lubricants, or services (such as transportation, rentals and maintenance of fixed installations). Thus, it is not practical to compare figures measuring the Defence Production Sharing Program, which include sub-contracts as well as production sharing prime contracts, with data in other sections of this Report which relate to the prime contracting for which this Department is directly responsible.

Regular monitoring and direction of the Defence Production Sharing Program was provided by a Committee of senior officials of both Governments. The Canadian members included representatives from the Departments of Defence Production, National Defence, Finance and External Affairs. The United States members included representatives from its Departments of Defense, Army, Navy and Air Force and the newly established triservice Defense Supply Agency.

The Department maintained close liaison with other Canadian Government departments and with appropriate authorities in the United States. Co-ordination with the Department of Trade and Commerce was continued to ensure that liaison opportunities provided by Trade Commissioners and trade shows in the United States were fully exploited. The production branches of the Department continued their close liaison with industry in order to maintain the level of activity in the program and to ensure the appropriate source listing of Canadian firms at various United States military agencies.

New editions of the "Canadian Commodities Index" and the "Guide to Research and Development Capabilities in Canadian Defence Industry" were published and distributed to the appropriate agencies and firms in the United States.

Canadian industrial research and development projects to meet United States defence requirements continue to be supported. Contracts amounting to \$8.8 million were issued in 1963 for this type of assistance, with expenditures totalling \$13.7 million during the year. Industry and other governments' contributions stimulated by the Development Sharing Program have more than doubled the level of defence industrial research and development activity funded by the Crown. Among the major projects were: airborne surveillance and navigation systems, short take-off and landing (V/STOL) aircraft, gas turbine engines, submarine detection, off-road vehicles, and lightweight missile launchers. Co-ordination of development sharing projects supported by the Department's development fund is provided by an Interdepartmental Committee made up of representatives from the Departments of Defence Production and National Defence.

These defence production sharing efforts resulted in significant increases in United States defence bid solicitation and Canadian industrial responses in the prime contract area. The United States Government enquiries to Canadian industry through Canadian Commercial Corporation rose from 8,290 in 1962 to 12,858 in 1963, and responses by Canadian companies rose from 2,384 to 2,853. Defence production sharing prime contracts placed by the United States Government with the Canadian Commercial Corporation rose from 1,088 to 1,130, having a total value of \$84.6 million. In the subcontract area, United States solicitations rose from 3,108 in 1962 to 3,385 in 1963 and responses rose from 2,624 to 2,904. Subcontracts received by Canadian firms increased from 1,769 to 2,075, and were valued at \$57.3 million. Other prime contracts received directly from the United States Government by Canadian industry and other institutions totalled \$0.2 million.

Such defence production sharing progress enabled the Canadian Government to continue to rely on United States defence industrial sources for the development and production of certain major Canadian defence requirements where this was economically desirable.

In addition to contributing to Canadian industrial defence technology, Canada's defence development and production sharing exports now account for a very substantial part of industrial defence business. The reciprocal advantages to the United States and Canada of the Production and Development Sharing Program during 1963 have been encouraging and the program has become an increasingly important factor in the Canadian defence industrial economy.

NATO Research, Development and Production and Overseas Defence Exports

During 1963 considerable effort was directed toward extension of our program of co-operation in defence production to our European NATO allies, in support of the NATO program of co-operation in defence research, development and production and in the field of Overseas defence export activity, generally.

The Department is responsible for co-ordination of Canadian activities within the NATO program of co-operation in defence research, development and production and has continued to provide the Canadian representation on the NATO Armaments Committee which administers the program.

Canada has submitted for consideration by NATO groups a number of projects in the aircraft, armament and electronics fields. Canadian aircraft and electronics firms have submitted design proposals in response to specific NATO requests. There has been a broadening of the exchange of information on national Research, Development and Production programs (RDP). On the invitation of Canada and the United States, four other NATO countries are participating in a co-operative research and development program on a counter mortar radar being developed by a Canadian firm. A Canadian/Norwegian plan for joint production of our combined requirements of the M72 Light Anti-tank Rocket has been approved as a NATO program. Other NATO countries have been invited to consider participation in the Canadian/British joint development of a short range surveillance system using an unmanned aerial vehicle. In the NATO effort to establish basic agreements which can provide a framework for co-operative RDP projects within NATO, Canada has submitted a proposal on inspection procedures which is now under consideration.

Within the program established by NATO defence ministers to co-ordinate defence requirements and logistics planning amongst the NATO allies, full recognition is given to the necessity for bilateral arrangements within which individual countries collaborate in specific defence development and production programs of mutual interest. In this field of bilateral co-operation Departmental teams have visited Britain, France and Federal Republic of Germany this year to locate and develop opportunities for participation by Canadian industry in development and production programs of these countries. During these visits a number of opportunities for the sale of Canadian defence equipment have been identified and areas of possible joint development have been discussed. These opportunities are being followed up actively by Departmental project officers, representatives of interested Canadian firms and by Canadian Defence Production Attachés stationed in Britain, France and the Federal Republic of Germany.

Materials Supply

The increased demands for Canadian prime metals and semi-fabricated materials did not affect the supply of Canadian defence, atomic energy and production sharing programs. Canada's defence and related programs were again dependent on allocations under the United States Defence Materials System for supply

of certain metallic and non-metallic materials. New and expanded facilities which came into production during the year again further decreased Canada's dependence on outside sources.

During the year the Department completed its sales of tin from the Departmental strategic materials stockpile. All sales were made to Canadian consumers at a rate that did not disrupt the normal market.

This year an increased number of Canadian defence and atomic energy contractors again found it advisable to take full advantage of the priorities, allocations and special assistance, provided to Canadian defence contractors under the United States Defense Production Act and satisfactory results were obtained. Canada's major defence programs were again included in the United States Master Urgency List, thus ensuring an equitable supply of strategic and critical materials to meet production schedules.

Emergency Supply Planning Branch

The Emergency Supply Planning Branch made further progress with plans and preparations to bring the War Supplies Agency into immediate existence in the event of a nuclear war. The Agency would operate at national, regional, zonal and local levels of government. It would assume control of the production, distribution and pricing of supplies for all civilian and military purposes except for certain aspects of the agricultural and fishing industries.

The stand-by staffing of the national and regional components, completed in 1962, was maintained at a satisfactory level in 1963. Substantial progress was made with the organization and staffing of zonal and local components on a stand-by basis.

Established research projects were continued throughout the year and some new ones were started. In the main, these research activities were concerned with surveys of the manufacturing, processing and wholesale levels of industry in respect of stock holdings and production capacities.

Work was virtually completed on an official list of essential materials, and a priority system for essential industries was developed.

In consultation with the Emergency Measures Organization, liaison was maintained with NATO agencies and United States authorities on matters affecting emergency control of supplies.

The Branch conducted two courses, each of five days' duration at the Canadian Civil Defence College. The first of these was attended by stand-by staff of the War Supplies Agency and the second by representatives of industry. The course for industrial executives reflected responsibilities for industrial continuity which were given to the Branch in 1962. Members of the Branch Headquarters staff lectured to over forty courses in emergency planning conducted by other agencies in the Ottawa area during 1963, and similar activities were undertaken by the various regional officers in respect of regional courses.

Advisory and Service Branches

The Administration Branch continued to provide a wide range of services in the field of personnel administration. The responsibilities allocated to the Minister of Industry had a critical impact on all Divisions of the Administration Branch. In addition to Defence Production, these included the Department of Industry, the transfer of certain branches of the Department of Public Printing and Stationery, the transfer of Emergency Measures Organization and the Civil Defence College at Arnprior, integration of Canadian Commercial Corporation and elements of the Department of Trade and Commerce. The expansion of the Department of Defence Production arising from services to the Department of Industry and the implementation of the Glassco recommendations on Purchasing and Supply also had a significant impact on the work of the Branch.

The Personnel Division, which had been staffed to service the Department of Defence Production, was augmented by a group of personnel officers seconded from the Civil Service Commission in order to provide the services of personnel administration required by the enlarged Departmental complex.

The Organization and Methods Division carried out studies in eighteen major areas including: extension of the Secretarial Purchasing Assistant Concept to additional Branches of the Department, re-organization of the Personnel Division, elements of Public Printing and Stationery, Defence Production Procedures and planning of layouts for the MacDonald Building. Plans were drawn up for the creation of a Management Services Branch which would absorb the Organization and Methods Division.

The Training and Development Division conducted courses in Contract Administration, Management Accounting, Industrial Organization and Management Control designed to support the needs of a highly technical staff. In addition many officers of the Department participated in outside training provided through the Civil Service Commission in the universities, industry and associations. Plans were being formulated for the special needs of the Department of Industry.

The Office Services Division was faced with greatly increased demands in regard to allocation of space and structural changes in buildings. The work of the Division was marked by increased demands for telephones, supply of furniture and equipment, planning of moves and structural changes in the temporary buildings.

The Departmental Library expanded its services under the impetus of the requirements of new organization.

The Comptroller's Branch provided the complete accounting service for the Department and for Canadian Commercial Corporation. Services on behalf of the Corporation included the operation of all bank accounts and special financial and accounting administration as required. Complete bookkeeping records, based as far as possible on commercial practice, were kept of the transactions against the Department's Parliamentary appropriations and of all assets and liabilities for which responsibility lies with the Minister. These assets include Crown-owned buildings and equipment in custody of private contractors or in warehouses. Their

accounting involved physical identification in the field and the maintenance of a full inventory record by description, quantity and value. Test physical counts of material carried in stock at various locations were also made during the year.

During 1963 the volume of Departmental accounting continued to increase with respect to F-104G and other Revolving Fund programs as well as those associated with assistance to Canadian industry and development of technological capabilities. Corporation accounting volume likewise was heavier during 1963 due to Production Sharing and other trade expansion efforts.

Time was devoted during the year on an increasing scale to consultations with respect to future arrangements concerning Department of Industry, central purchasing, etc.

The financial position of the Department as at March 31, 1963, is shown in the Balance Sheet and related schedules given in Appendix G, duly certified and reported upon by the Auditor General.

The Economics and Statistics Branch provided the general economic and statistical services required by the Department. In addition to the regular quarterly statistical reports on contracts under the Canada-United States Defence Production Sharing Program and Defence Procurement between Canada and all Overseas countries (excluding the United States), the Branch prepared a statistical report on expenditures against contracts placed under the Canada-United States Defence Production Sharing Program. Approximately 165,000 contracts, related documents and some 80,000 prepunched cards on expenditures were analysed with the aid of data processing equipment. The work of the data processing group was increased in 1963 with continuing requirements for the new Department of Industry as well as for a variety of *ad hoc* projects. Senior officers of the Branch were involved in the re-organization of the statistical and data processing services which would be required for the new organization.

The Financial Adviser's Branch advised on the development and application of financial policies related to defence contracts. This involved the review of major contract proposals to ensure the proper application of Departmental financial policies. The Branch reviewed contract audit reports and assisted in resolving cost and profit problems arising from them. Studies were undertaken during the year on achieving additional incentive type contracts; the acceptability of defence costs and on the application of duties and sales tax to defence contracts. The Branch participated in reviews covering the application of overhead costs to defence work and on the profit position of follow-on contracts resulting from assistance provided under the Defence Production Sharing Program. The Branch provided information on contractor liability for insurance, taxes and duties and advised on related problems arising from contract negotiations. Applications for capital assistance or additional capital cost allowance (accelerated depreciation) were reviewed in the light of Departmental policy. Declarations of surplus items were screened for approval and the use of Crown equipment on non-Canadian defence work was assessed for rental charges. The preparation of the Department's estimates and the appropriations of associated Crown companies were co-ordinated. The Branch administered municipal grants made in lieu of taxes on Crown-owned defence plants operated by private contractors.

The Legal Branch advised the Department on the legal implications of its various activities and the legal steps required to protect the Department in its transactions. In so doing it provided all other Branches and the Deputy Minister's Office with legal services.

The preparation of Formal Contracts was one of the principal functions of the Branch during the year. Its services in this regard commenced in the pre-contractual stage during the negotiation of the larger and more complex production contracts.

A large part of the work on Formal Contracts during the year concerned transactions under which Canada sold defence supplies to, and performed research and development for, the United States Government (under the Canada-United States Defence Production Sharing Program) and sold defence supplies to NATO governments and certain countries outside NATO. In addition the Branch assisted the Department in the negotiation of certain Basic Agreements which were entered into in order to assist other countries in procuring supplies from Canada.

In respect of sales of defence supplies by Canada to other governments, the Branch was called upon to advise on the implications of patents and proprietary rights held by third parties in Canada or in other countries or held by other non-participating governments.

In addition to Formal Contracts covering purchasing and production, Legal Branch prepared miscellaneous Formal Contracts which included the granting by the Crown of financial assistance to contractors in respect of capital assistance, the establishment of qualified sources for the production of component parts and materials and the sustaining of technological capability in Canadian industry by supporting selected defence development programs.

During the year the Branch performed certain legal services for the Department of Industry and handled all legal work for Canadian Commercial Corporation. From time to time the Branch was consulted on legal matters by other Crown agencies which report to the Minister.

The Secretary's Branch provided the Departments with such essential services as communications, printing and stationery, central registry, administrative and purchasing services. In co-operation with the Emergency Supply Planning Branch, the Secretary conducted a survey in the procurement branches to explore the problems likely to be encountered in accelerated buying during a period of national emergency.

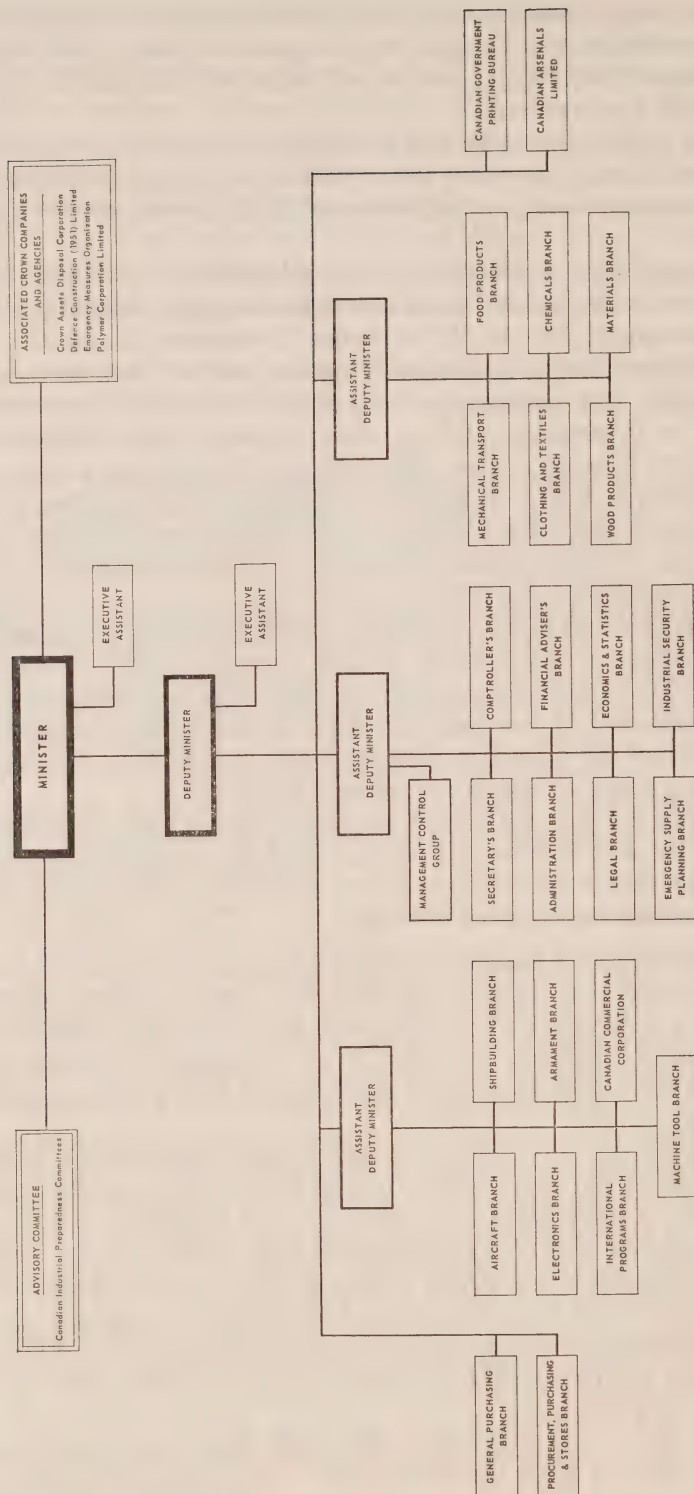
The Branch, in conjunction with various procurement branches and the Department of National Defence, revised certain follow-up procedures on defence contracts and participated in standardizing and simplifying invoicing instructions. In co-operation with the Departmental units concerned, the Branch prepared, edited and distributed a second edition of the Canadian Commodities Index and has begun work on a new Index aimed at the Overseas markets.

The Branch took an active part in co-ordinating and introducing new methods throughout the Department as a result of the re-organization of the Canadian Commercial Corporation.

The Branch, in association with other Departmental groups, planned the re-organization of those service branches of the Department which will be at the disposal of both the Departments of Industry and Defence Production.

DEPARTMENT OF DEFENCE PRODUCTION
Organization as at December 31, 1963.

Appendix A



Appendix B

Senior Personnel of the Department

as at December 31, 1963

Minister

The Honourable C. M. Drury, P.C., C.B.E., D.S.O., Q.C., M.P.

Executive Assistant to the Minister F. M. Wanklyn

Deputy Minister

G. W. Hunter

Assistant Deputy Minister	W. H. Huck
Assistant Deputy Minister	D. B. Mundy
Assistant Deputy Minister	B. G. Barrow
Executive Assistant to the Deputy Minister	W. J. Mulock

Production Branches

Director, Aircraft Branch	D. L. Thompson
Deputy Director, Aircraft Branch	A. D. Belyea
Director, Armament Branch	C. L. Muir
Director, Electronics Branch	J. S. Glassford
Deputy Director, Electronics Branch	S. I. Comach
Deputy Director, Electronics Branch	T. C. Jones
Director, International Programs Branch	R. M. Trites
Director, Machine Tool Branch	R. Mosher
Director, Mechanical Transport Branch	N. B. MacDonald
Director, Shipbuilding Branch	J. C. Rutledge
Deputy Director, Shipbuilding Branch	J. J. McKennirey

General Purchasing Branch

Director	D. M. Erskine
Deputy Director	R. C. D. Laughton

Procurement, Purchasing and Stores Branch

Director	G. P. O'Keefe
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Emergency Supply Planning Branch

Director	J. C. Morrison
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Advisory and Service Branches

Financial Adviser	R. M. Keith
Deputy Financial Adviser	N. R. MacLean
Director, Contracts Authorization Division	R. E. Sayers
Comptroller	G. F. Wevill
Deputy Comptroller	T. E. Brown
Departmental Secretary	J. J. Tevlin
Director, Administration Branch	H. R. Kotlarsky
Director, Industrial Security Branch	L. C. Cragg
Director, Legal Branch	F. F. Waddell
Deputy Director, Legal Branch	C. S. Stevenson
Director, Management Control Group	A. R. Bailey
A/Director, Economics & Statistics Branch	K. L. J. Boite
Director, London (England) Office	P. Solly-Flood
Director, Washington Office	D. H. Gilchrist

Canadian Government Printing Bureau

Acting Director	C. B. Watt
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Appendix C

Distribution of Departmental Staff

as at 31 December 63

Branch	31 Dec. 63
Deputy Minister's	85
Administration	108
Aircraft	163
Armament	65
Comptroller's	88
Economics & Statistics	31
Electronics	171
Emergency Supply Planning	70
Financial Adviser's	48
General Purchasing	342
Industrial Security	25
International Programs	51
Legal	9
Machine Tool	25
Management Control	10
Secretary's	200
Shipbuilding	120
TOTALS	<hr/> 1611 <hr/>

Appendix D

Crown Companies Associated with the Department of Defence Production

as at December 31, 1963

Canadian Arsenals Limited

President and General Manager	J. R. Brisson
Vice-President	G. W. Hunter

Canadian Commercial Corporation

President	M. H. Lamoureux
Secretary and Legal Adviser	F. F. Waddell
Comptroller	G. F. Wevill

Crown Assets Disposal Corporation

President and General Manager	Louis Richard
Vice-President	G. W. Hunter
Assistant General Manager	I. M. Mackinnon
Secretary and Legal Counsel	M. J. Ellsworth

Defence Construction (1951) Limited

President and General Manager	A. G. Bland
Secretary and Legal Counsel	J. D. Jennison
Treasurer	N. Tokaryk

Polymer Corporation Limited

Chairman of the Board	E. J. Brunning
President and Managing Director	E. R. Rowzee
Vice-President, Operations	L. D. Dougan
Vice-President, Finance	S. Wilk
Vice-President, Marketing	R. E. Hatch
Vice-President, Research and Development	Dr. E. J. Buckler
Secretary and Chief Legal Officer	W. J. Dyke

Appendix E

District Purchasing Offices and Offices Located Outside Canada

Addresses as at December 31, 1963

District Purchasing Offices

ST. JOHN'S, NFLD.	Room 401, Main Post Office Building, Water Street. (P.O. Box 487).
HALIFAX, N.S.	Room 527, Federal Building, Bedford Row. (P.O. Box 1655).
SAINT JOHN, N.B.	Room 408, Sadim Building, Canterbury & Duke Streets.
QUEBEC, P.Q.	Gare Maritime Champlain, Chemin des Foulons.
MONTREAL, P.Q.	685 Cathcart Street.
OTTAWA, ONT.	953 Somerset Street West.
TORONTO, ONT.	Room 1214, Mackenzie Building, 36 Adelaide Street East.
LONDON, ONT.	388 Dundas Street. (P.O. Box 2275—Terminal "A").
WINNIPEG, MAN.	Room 326 E, 344 Edmonton Street.
REGINA, SASK.	302, New Post Office Building, Cornwall & S. Railway Streets.
CALGARY, ALTA.	Room 725, Public Building, 8th Avenue & 1st Street East.
EDMONTON, ALTA.	Room 309, Federal Building, 107th Street & 99th Ave.
VANCOUVER, B.C.	Room 407, Federal Building, 325 Granville Street.
VICTORIA, B.C.	Room 318, Canada Customs House, 816 Government Street.

Offices Located Outside Canada

WASHINGTON, U.S.A.	Canadian Department of Defence Production, 2450 Massachusetts Ave., (P.O. Box 4897, Cleveland Park Station), WASHINGTON 8, D.C., U.S.A.
Sub-Office	MCL DDP Wright-Patterson Air Force Base, OHIO, U.S.A.

PRODUCTION SHARING

LIAISON OFFICES

Counsel and Assistant Trade Commissioner,
Department of Trade and Commerce,
c/o Canadian Consulate General,
680 Fifth Avenue,
NEW YORK 19, N.Y., U.S.A.

ROP/DDP

Rome Air Materiel Area,
Griffiss Air Force Base,
ROME, N.Y., U.S.A.

Canadian Department of Defence Production,
L.G. Hanscom Field,
BEDFORD, Mass., U.S.A.

Canadian Department of Defence Production,
c/o U.S. Army Electronics Materiel Agency-
SELMA-A13,
225 South 18th Street,
PHILADELPHIA 3, Pa., U.S.A.

Canadian Department of Defence Production,
c/o U.S. Army Ordnance District,
1580 East Grand Blvd.,
DETROIT 11, Mich., U.S.A.

Counsel and Trade Commissioner,
Canadian Consulate General,
510 West Sixth Street,
LOS ANGELES 14, Calif., U.S.A.,
for D.D.P.

Canadian Consulate General,
310 South Michigan Avenue,
Suite 2000,
CHICAGO 4, Ill., U.S.A.

Counsel and Assistant Trade Commissioner,
Department of Trade and Commerce,
c/o Canadian Consulate General,
Suite 1710,
225 Baronne Street,
NEW ORLEANS 12, La., U.S.A.

LONDON, ENGLAND

Canadian Department of Defence Production,
1 Grosvenor Square,
LONDON W. 1, England.

Sub-Offices Canadian Department of Defence Production,
c/o Canadian Embassy,
1 rue Chanez,
PARIS 16e, France.

Canadian Department of Defence Production,
54 KOBLENZ-PFAFFENDORF,
Emserstrasse 21, Germany.

Canadian Department of Defence Production,
c/o Scottish Aviation Limited,
PRESTWICK AIRPORT,
Ayrshire, Scotland.

OFFICE OF DDP REPRESENTATIVE
TO THE NORTH ATLANTIC
COUNCIL

OTAN-NATO,
Place du Maréchal de Lattre de
Tassigny,
PARIS 16e, France.

DEFENCE PRODUCTION ATTACHÉ c/o Canadian Embassy,
35 avenue Montaigne,
PARIS 8e, France.

DEFENCE PRODUCTION ATTACHÉ-
CANADIAN REPRESENTATIVE TO
THE EUROPEAN ORGANIZATION
FOR DIRECTION AND CONTROL
F-104G

c/o Canadian Embassy,
Zitelmannstrasse 22,
BONN, Germany.

Appendix F

Statistics of Defence Contracts and Expenditures

The statistical tables in this Appendix contain information for calendar years 1962 and 1963 on contracting and related spending in connection with the Canadian defence procurement and construction program and with foreign government prime defence contracts placed through Canadian Government agencies. These statistics measure the value of contracts as they are issued to contractors and suppliers and the value of payments as they are made to them.

The net value of contracts issued, as shown in these tables, includes the value of amendments which increased or decreased commitments under existing contracts, as well as the value of new contracts. In some cases, therefore, credit net values are shown because decreasing amendments to contracts placed in earlier years have exceeded the value of new contracts and increasing amendments issued.

Some of the figures for 1962 have been revised since they were published in the preceding issue of the Annual Report of the Department. Also, the totals shown do not always equal the sum of the component figures because of rounding the figures to the nearest thousand dollars.

The tables are grouped in pairs, with the first "a" containing data on the net value of contracts issued and the second "b" containing the value of expenditures against these contracts and against similar contracts placed in earlier years.

Tables 1-a and 1-b contain summary statistics relating to all contracts issued by the Department of Defence Production and its associated Crown companies, Defence Construction (1951) Limited and Canadian Commercial Corporation, with the exception of those involving payments out of the Defence Production Revolving Fund. Both contract and expenditure data are broken down by the various sources that requisition and pay for the goods or services involved.

Tables 2-a and 2-b contain statistics related to contracting by the Department of Defence Production and Defence Construction (1951) Limited on behalf of the Department of National Defence. Payments against these contracts are made from funds appropriated by Parliament for the Department of National Defence. The figures in these tables are broken down by defence programs (as defined below) and the country in which the prime contractor is located (based on the address to which the contract is sent). The data contained in Tables 2-a and 2-b are similar to those contained in Tables 1-a and 1-b to Tables 4-a and 4-b in previous Annual Reports of the Department.

Tables 3-a and 3-b provide data relating to prime defence contracts placed in Canada by foreign governments through Canadian Government agencies, such as Canadian Commercial Corporation. The Department of Defence Production issues most of the contracts for Canadian Commercial Corporation.

Tables 4-a and 4-b relate to certain activities in support of Canadian defence industry that are financed from Defence Production Parliamentary appropriations.

Definitions of the Defence Programs

The general concept involved in this defence program classification is that of relating all procurement, as far as possible, to a readily identifiable military end-item, such as an aircraft, a ship, an electronic device, a gun, a type of ammunition, an item of clothing, etc. Thus a particular program includes, in addition to the end-item, those components or parts that become an integral part of the end-item, as well as associated services such as design and development, installation, maintenance and repair and overhaul.

AIRCRAFT: This program includes complete aircraft and items to be physically incorporated in complete aircraft, such as airframes, engines, propellers, navigational and flight instruments, electrical systems and their components. The repair and overhaul of aircraft is also included. Excluded are accessories such as armament and communication equipment, photographic equipment, training devices and ground support equipment.

ARMAMENT: This program includes weapons such as small arms, guns, howitzers and their components; light, medium and heavy ammunition of all types, including mines, depth charges and torpedoes; rockets and missiles and their launchers; and explosives and certain defence chemicals. Electronic fire controls are not included.

ELECTRONICS: Electronics and communication equipment of all types are in this program, including telephone, telegraph, radio and radar equipment. Underwater sound equipment, fire control equipment and flight and tactics simulators are also included. Development, maintenance, management and transportation services associated with the procurement of electronic and communication equipment are in this program. (This program was formerly identified as the Electronics and Communication Equipment program.)

SHIPS: This program includes destroyer escorts, frigats, minesweepers, aircraft carriers, and other floating equipment, and ship components such as hulls and superstructures, propulsion machinery, boilers, condensers, heating and electrical systems. Reconversion, refit and repair of ships are also included. Armament and electronic gear are excluded.

TANK-AUTOMOTIVE: Included in this program are tanks and vehicles of both armoured and non-armoured types. Cars, trucks and buses and their components, such as tires and tubes, are included. Excluded are armament and electronic equipment.

FUELS AND LUBRICANTS: This program includes petroleum, gas, coal and coke, and their products, principally aviation turbine fuel and gasoline, motor vehicle gasoline, and heating fuels.

CLOTHING AND EQUIPAGE: All items of personal clothing, including footwear, and of personal equipment, such as mess kits and steel helmets, are in this program.

CONSTRUCTION: This program includes all construction contracts for building structures, runways, etc., as well as for consultant services, repairs and maintenance. Most of these contracts are placed by Defence Construction (1951) Limited.

Appendix

Table 1-a.—Net Value of All Contracts Issued

Sources for which Contracts Issued	1962	1963
	\$000	\$000
Department of National Defence	536,666	522,277
Department of Defence Production:		
Votes in Support of Defence Industry	9,387	11,330
Foreign Governments:		
United States	202,887	96,868
Britain	1,147	1,372
Federal Republic of Germany	14,333	2,693
Other Governments	7,253	34,239
Canadian External Aid	24,981	11,646
Other	985	1,543
Total	797,639	681,968

Table 1-b.—Expenditures Against All Contracts Issued

Sources Paying the Contracts	1962	1963
	\$000	\$000
Department of National Defence	606,374	523,551
Department of Defence Production:		
Votes in Support of Defence Industry	8,971	16,776
Foreign Governments:		
United States	127,747	152,835
Britain	1,213	1,844
Federal Republic of Germany	4,361	6,297
Other Governments	2,527	28,312
Canadian External Aid	9,214	21,079
Other	4,224	3,325
Total	764,631	754,019

Table 2-a.—Net Value of Canadian Government Defence Contracts

1963

Program	Canada	United States	Britain	France	Other Countries	Total
	\$000	\$000	\$000	\$000	\$000	\$000
Aircraft	140,130	26,424	912	10	68	167,545
Armament	11,328	2,490	330	40 cr	13	14,119
Electronics	94,315	11,254	1,677	284	312	107,843
Ships	40,346	576	286	(a)	—	41,209
Tank-automotive	13,014	49	4,233	91	287	17,674
Fuels and lubricants	46,034	58	119	63	383	46,658
Clothing and equipage	10,660	46	40	6	2	10,754
Construction	31,247	—	—	1,558	424	33,229
Other	79,023	1,223	508	1,399	1,091	83,246
Total	466,097	42,121	8,107	3,107	2,581	522,277

1962

Program	Canada	United States	Britain	France	Other Countries	Total
	\$000	\$000	\$000	\$000	\$000	\$000
Aircraft	186,734	16,447	1,855	3	212	205,252
Armament	14,517	3,120	250	7,576	4	25,466
Electronics	73,033	8,500	671	382	200	82,785
Ships	27,351	253	185	—	51	27,841
Tank-automotive	7,182	804	671	45	221	8,924
Fuels and lubricants	38,057	11	163	85	289	38,605
Clothing and equipage	12,712	8	80	5	8	12,814
Construction	38,125	—	—	1,118	200	39,443
Other	88,811	2,973	1,297	1,351	1,104	95,536
Total	486,523	32,117	5,171	10,564	2,290	536,666

(a) Less than \$500.

Table 2-b.—Expenditures Against Canadian Government Defence Contracts

1963

Program	Canada	United States	Britain	France	Other Countries	Total
	\$000	\$000	\$000	\$000	\$000	\$000
Aircraft	158,569	13,070	1,823	10	72	173,544
Armament	14,905	2,498	2,171	4,552	13	24,139
Electronics	91,201	10,780	1,035	284	263	103,564
Ships	51,826	496	378	(a)	53	52,753
Tank-automotive	9,550	22	851	91	287	10,802
Fuels and lubricants	28,593	12	97	63	386	29,151
Clothing and equipage	11,980	3	65	6	2	12,056
Construction	30,880	—	—	1,319	311	32,510
Other	79,535	2,164	862	1,400	1,072	85,033
Total	477,039	29,046	7,283	7,725	2,458	523,551

1962

Program	Canada	United States	Britain	France	Other Countries	Total
	\$000	\$000	\$000	\$000	\$000	\$000
Aircraft	171,536	17,702	1,577	3	82	190,900
Armament	13,163	1,779	990	12	4	15,948
Electronics	97,127	14,327	1,501	382	200	113,537
Ships	52,347	741	414	—	—	53,503
Tank-automotive	8,133	826	563	45	250	9,818
Fuels and lubricants	37,261	8	73	85	284	37,711
Clothing and equipage	10,615	65	74	5	4	10,763
Construction	79,302	—	—	1,161	339	80,802
Other	87,782	2,207	959	1,351	1,093	93,393
Total	557,266	37,655	6,152	3,044	2,256	606,374
(a) Less than \$500						

Table 3-a.—Net Value of Foreign Government Prime Contracts Placed in Canada

1963

Program	United States	Britain	West Germany	Other Countries	Total
	\$000	\$000	\$000	\$000	\$000
Aircraft	46,706	—	1,394	29,089	77,189
Armament	5,033	766	3	582	6,384
Electronics	33,614	129	1,296	4,056	39,095
Fuels and lubricants	3,327	—	—	—	3,327
Construction	1,151	—	—	—	1,151
Other	7,037	476	(a)	512	8,026
Total	96,868	1,371	2,693	34,239	135,172

1962

Program	United States	Britain	West Germany	Other Countries	Total
	\$000	\$000	\$000	\$000	\$000
Aircraft	149,708	(a)	1	102	149,811
Armament	6,916	446	10	357	7,730
Electronics	37,581	232	14,280	6,438	58,531
Fuels and lubricants	2,234	—	—	—	2,234
Construction	3,435	—	—	—	3,435
Other	3,012	468	42	356	3,879
Total	202,887	1,147	14,333	7,253	225,620

(a) Less than \$500.

**Table 3-b.—Expenditures Against Foreign Government Prime Contracts
Placed in Canada**

1963

Program	United States	Britain	West Germany	Other Countries	Total
	\$000	\$000	\$000	\$000	\$000
Aircraft	95,157	(a)	228	21,905	117,290
Armament	5,572	564	3	593	6,732
Electronics	42,971	754	6,046	5,392	55,163
Fuels and lubricants	3,702	—	—	—	3,702
Construction	2,050	—	—	—	2,050
Other	3,384	525	20	423	4,352
Total	152,835	1,844	6,297	28,312	189,289

1962

Program	United States	Britain	West Germany	Other Countries	Total
	\$000	\$000	\$000	\$000	\$000
Aircraft	71,817	16	1	200	72,035
Armament	5,820	265	10	368	6,462
Electronics	33,677	471	4,328	1,632	40,108
Fuels and lubricants	4,626	—	—	—	4,626
Construction	9,275	—	—	—	9,275
Other	2,531	461	22	328	3,342
Total	127,747	1,213	4,361	2,527	135,849

(a) Less than \$500.

Table 4-a.—Net Value of Contracts to Assist Canadian Defence Industry

Category of Assistance	1962	1963
	\$000	\$000
Care, maintenance and custody of Crown owned standby defence assets	293	164
Capital assistance	92	150
Establishment of competitive production capacity through absorbing certain preproduction and tooling costs	245	1,753
Establishment of qualified sources for the production of component parts and materials	291	474
To sustain research and development capability in Canadian industry in order to assist the Canada-United States development and production sharing programme	8,466	8,789
Total	9,387	11,330

Table 4-b.—Expenditures Against Contracts to assist Canadian Defence Industry

Category of Assistance	1962	1963
	\$000	\$000
Care, maintenance and custody of Crown owned standby defence assets	1,056	583
Capital assistance	153	119
Establishment of competitive production capacity through absorbing certain preproduction and tooling costs	703	1,890
Establishment of qualified source for the production of component parts and materials	279	485
To sustain research and development capability in Canadian industry in order to assist the Canada-United States development and production sharing programme	6,781	13,699
Total	8,971	16,776

Appendix G

**Report to the Minister on the
Audit of the Accounts of the Department**

OTTAWA, November 22, 1963.

The Honourable C. M. Drury,
Minister of Industry,
Ottawa.

SIR,

I have examined the accounts and financial statements of the Department of Defence Production for the year ended March 31, 1963 and I now report that, in my opinion:

- (a) proper books of account have been kept by the Department;
- (b) the financial statements of the Department
 - (i) were prepared on a basis consistent with that of the preceding year and are in agreement with the books of account,
 - (ii) in the case of the balance sheet, give a true and fair view of the state of the Department's affairs as at the end of the financial year, and
 - (iii) in the cases of the statement of expenditure, statement of revenue and the summary of transactions in surplus arising from trading operations, give a true and fair view of the operations of the Department for the financial year; and
- (c) the transactions of the Department that have come under my notice have been within the powers of the Department under the Defence Production Act and any other Act applicable to the Department.

In accordance with established governmental practice, the Crown-owned capital assets for which the Department is accountable are carried on the balance sheet at cost, without showing any deduction with respect to depreciation.

Yours faithfully,

A. M. Henderson,
Auditor General.

Balance Sheet as at March 31, 1963 (with comparative figures as at March 31, 1962)

GENERAL ACCOUNT		LIABILITIES AND GOVERNMENT EQUITY	
ASSETS	1963	1962	1963
Cash	\$ 586,027	\$ 409,362	\$ 919,260
Accounts receivable— Purchasers of Crown plants and equipment	\$ 8,302,746		\$ 343,035
Other	59,478		401,606
	8,362,224		578,270
Advances— Crown agencies	17,000,000		Equity of Government of Canada, Exhibit II
Other	13,607		221,542,131
			229,261,456
	17,013,607		
Investments, at cost— Polymer Corporation Limited, capital stock	30,000,000		
Township of Toronto, 3% de- bentures 1963-71	242,015		
Defence Construction (1951) Limited, capital stock	30		
Canadian Arsenals Limited, capital stock	30		
	30,242,075		
Crown-owned lands, buildings, ma- chinery and equipment, at cost, including rehabilitation and installation costs			
With contractors	52,327,273		
In warehouse	5,296,368		
	57,623,641		

Summary of transactions in Equity of Government of Canada Account

for the year ended March 31, 1963

Balance at April 1, 1962 \$229,261,456

Additions:

Transfer of assets from other departments and Crown agencies	2,509,001
Assets acquired from appropriations	231,150
Sundry	343

\$232,001,950

Reductions:

Transfer of surplus assets to Crown Assets Disposal Corporation	4,945,808
Receipts from sales, etc., Exhibit IV	2,351,331
Decrease in fixed assets in custody of Canadian Arsenals Limited	1,752,431
Increase in accounts payable	576,225
Decrease in working capital advance to the Canadian Commercial Corporation	500,000
Transfer of assets to other departments and Crown agencies	290,610
Assets written off due to completion of contracts, dismantling, etc.	31,346
Compromise settlement of account receivable	10,655
Sundry	1,413

10,459,819

Balance at March 31, 1963

\$221,542,131

Exhibit III

Statement of Expenditure for the year ended March 31, 1963

(with comparative figures for the year ended March 31, 1962)

	1963	1962
Vote 1, Departmental administration		
Salaries	\$9,145,053	\$ 8,297,919
Living allowances	209,169	157,677
Travelling expenses	288,831	306,608
Office stationery, supplies and equipment	243,244	266,350
Telephones and telegrams	176,191	205,141
Professional and special services	113,164	110,981
Postage	57,392	62,464
Freight, express and cartage	12,122	13,170
Rental of office accommodation	3,343	2,277
Publication of departmental reports and other material	1,186	1,531
Sundries	17,011	70,919
	<hr/> \$10,266,706	<hr/> 9,495,037
 Vote 5, Care, maintenance and custody of standby defence plants, buildings, machine tools and production tooling	 846,603	 877,016
 Vote 10, Capital assistance		
Capital account		
Construction, improvements and acquisition of land		627,227
Equipment	113,341	131,059
Accountable advances to contractors	63,597	.....
Establishment of production capacity	52,720	18,067
Income account		
Establishment of production capacity	1,335,853	933,644
	<hr/> 1,565,511	<hr/> 1,709,997
 Vote 15, Grants to municipalities in lieu of taxes	 130,012	 119,474
 Vote 20, Establishment of qualified sources for production of component parts and materials		
Capital account	1,667	9,700
Income account	243,539	364,824
	<hr/> 245,206	<hr/> 374,524

Vote 25, Sustainment of technological capability in Canadian industry	\$ 8,537,898	\$ 4,672,046
Vote 30, Defence Construction (1951) Limited Administration	3,221,504	3,459,615
Canadian Arsenals Limited—		
Vote 35, Administration and operation	4,200,573	3,169,725
Vote 40, Construction and improvements	7,464	28,455
Vote 40, Equipment	375,296	262,092
	<u>382,760</u>	
Statutory—Minister of Defence Production		
Salary	15,000	15,000
Motor car allowance	2,000	2,000
	<u>17,000</u>	
Refund of prior year's rental revenue		9,153
Total expenditure	<u>\$29,413,773</u>	<u>\$24,194,134</u>

Exhibit IV

**Statement of Revenue for the year
ended March 31, 1963**

(with comparative figures for the year ended March 31, 1962)

	1963	1962
Income Account—		
Sales of surplus Crown assets	\$ 8,543,519	\$ 9,627,987
Return on investments	3,652,107	3,924,658
Rentals of buildings and equipment	182,575	278,778
Refunds of previous years' expenditure	108,652	6,074
Miscellaneous	4,649	5,357
	<u>12,491,502</u>	<u>13,842,854</u>
Capital Account—		
Sales of plant and equipment by the Department	2,318,771	1,472,438
Repayment of debentures	23,129	22,455
Recoveries of advances and accounts receivable	9,431	6,266
	<u>2,351,331</u>	<u>1,501,159</u>
	<u><u>\$14,842,833</u></u>	<u><u>\$15,344,013</u></u>

Exhibit V

**Summary of transactions in surplus arising
from trading operations (Revolving Fund)
for the year ended March 31, 1963**

(with comparative figures for the year ended March 31, 1962)

	1963	1962
Balance at April 1	\$290,271	\$ 184,975
Additions:		
Sales, less cost of materials sold—		
Aircraft and components, sales	\$7,710,679	.....
Aircraft and components, cost of sales	7,710,679	.....
	<hr/>	<hr/>
Strategic materials, sales	4,873,877	2,319,515
Strategic materials, cost of sales	4,470,458	2,078,763
	<hr/>	<hr/>
	403,419	240,752
	<hr/>	<hr/>
Research and development, sales	1,943,230	290,714
Research and development, cost of sales	1,943,230	290,714
	<hr/>	<hr/>

Sonobuoys, sales	748,664	.....
Sonobuoys, cost of sales	703,125	.....
	<hr/>	<hr/>
Surplus transferred to accounts payable, reserve for price adjustment	45,539	.....
	<hr/>	<hr/>
Shipbuilding components, sales	63,944	79,898
Shipbuilding components, cost of sales	63,944	79,898
	<hr/>	<hr/>

Cloth, sales .....	.....	5,162
Cloth, cost of sales .....	.....	3,361
	<hr/>	<hr/>
	.....	1,801
	<hr/>	<hr/>
Munitions and components, sales	(112,769)	903,344
Munitions and components, cost of sales	(112,769)	903,344
	<hr/>	<hr/>

Interest received on sales of aircraft, net	194,423	.....
	<hr/>	<hr/>
	888,113	427,528
	<hr/>	<hr/>

Reductions:

Warehousing and other expenses—cloth and strategic materials	7,874	137,257
Less: proceeds of sale of warehousing equipment	1,755
	<u>6,119</u>	<u>137,257</u>
Balance at March 31	<u>\$881,994</u>	<u>\$ 290,271</u>

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DEPARTMENT OF DEFENCE PRODUCTION • OTTAWA, CANADA

1964

ANNUAL REPORT

FOURTEENTH REPORT

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DEPARTMENT

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DEFENCE

PRODUCTION

1964

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Hon. C. M. DRURY, P.C., C.B.E., D.S.O., Q.C., M.P., *Minister*

G. W. HUNTER, *Deputy Minister*

ROGER DUHAMEL, F.R.S.C.
Queen's Printer and Controller of Stationery
Ottawa, 1965

Catalogue No. P1-4/1964

*To His Excellency General The Right Honourable Georges P. Vanier,
DSO, MC, CD, Governor-General and Commander-in-Chief of
Canada.*

MARCH 31, 1965

MAY IT PLEASE YOUR EXCELLENCY:

I have the honour to submit to Your Excellency the Report of the Department of Defence Production for the calendar year 1964.

A summary of the operations and services rendered by this Department, under their respective headings, is laid before Your Excellency.

Respectfully submitted,

A handwritten signature in dark ink, consisting of a series of loops and a long vertical stroke on the right side.

Minister of Defence Production.

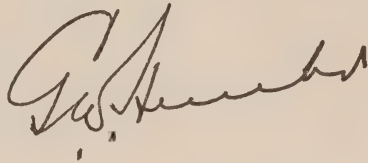
MARCH 31, 1965

The Honourable C. M. Drury, P.C., C.B.E., D.S.O., Q.C., M.P.,
Minister of Defence Production,
Ottawa, Ontario.

DEAR SIR:

I have the honour to submit the Report of the Department of Defence Production, which covers the operations and services rendered during the calendar year 1964.

Yours faithfully,

A handwritten signature in dark ink, appearing to be 'G. H. ...', written in a cursive style.

Deputy Minister.

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Responsibilities and Organization

The Department of Defence Production was established on April 1, 1951, under the provisions of the Defence Production Act. It has exclusive authority for the procurement of the goods and services required by the Department of National Defence. In addition the Department has the responsibility for ensuring that necessary production capacity and materials are available to support the defence production program.

Further responsibilities of the Department are defence development and production sharing with the United States, defence production export activities with the North Atlantic Treaty Organization (NATO) and other friendly countries as well as co-operation in armament programs within the NATO alliance.

The Department is also responsible for the purchase in Canada of goods required by foreign governments under the Colombo Plan and other international agreements.

During the year further implementation of the recommendations of the Royal Commission on Government Organization was made by the Department, resulting in a significant shift in internal responsibilities and consequent re-alignment of the organizational structure.

An organization plan for the future Department of Supply was prepared during the year in accordance with the recommendation of the Royal Commission. The plan called for the integration of the purchasing organization of Defence Production with the supply functions of warehousing and distribution, specifications and standards, quality assurance, cataloguing and traffic management.

Four branches of the integrated supply service were formed: Regional Purchasing, Warehousing and Distribution, Traffic Management and Cataloguing. The Quality Assurance and Specifications and Standards Branches will be fully established in 1965. These branches, along with Crown Assets Disposal Corporation, will comprise the Canadian Government Supply Service.

Operational Branches

A major change in organization saw the responsibilities of the former General Purchasing Branch divided amongst several branches: Machinery, Mechanical Transport, Clothing and Textiles, Electrical and Electronics, Wood Products, Food Products, Chemicals and Materials.

The establishment of the new Regional Purchasing Branch as a component of the Canadian Government Supply Service emphasized the increasing importance of the Department's field purchasing activities. Regional Purchasing operates 14 buying offices across Canada, and offices in Washington, London, Paris and Koblenz.

The assumption of additional functions resulted in the names of two branches being changed: Shipbuilding became Shipbuilding and Heavy Equipment and

Electronics Branch was re-named the Electrical and Electronics Branch. The Armament Branch and Machine Tool Branch were dissolved and most of their functions combined in the new Machinery Branch.

The Department now has 10 operational branches:

- Aircraft
- Chemicals
- Clothing and Textiles
- Electrical and Electronics
- Food Products
- Machinery
- Materials
- Mechanical Transport
- Shipbuilding and Heavy Equipment
- Wood Products

International Programs Branch is responsible for planning, processing and coordinating activity within the Department in the defence export field, including the Canada-United States Defence Production sharing program. The Branch also directs activities associated with NATO research, development and production programs and overseas defence exports.

Advisory and Service Branches

Changes in the branch structure in this category included the re-naming of the former Administration Branch as the Personnel Branch, a description more in line with its function. A new General Services Branch was formed from three former branches, Secretary's, Economics and Statistics and Industrial Security. A Management Services Branch was created to provide management consulting service to the Department.

There are now seven branches providing service or advisory facilities:

- Comptroller's
- Financial Adviser's
- General Services
- Legal
- Management Control
- Management Services
- Personnel

Emergency Planning

Continued planning for a War Supplies Agency which would exercise control over the Canadian economy in the event of a nuclear war is the responsibility of the Emergency Supply Planning Branch.

Crown Companies

Further to the recommendations of the Royal Commission on Government Organization, the operations of the Canadian Commercial Corporation were integrated with the Department.

In addition to the Canadian Commercial Corporation, the following Crown companies report to Parliament through the Minister of Defence Production:

Canadian Arsenals Limited

Crown Assets Disposal Corporation

Defence Construction (1951) Limited

Polymer Corporation Limited.

Each of these organizations accounts for its activities through its own annual report.

Canadian Government Printing Bureau

In March 1964, the Canadian Government Printing Bureau was formed to be responsible for the printing functions of the former Department of Public Printing and Stationery. The responsibility for publications now rests with the Queen's Printer. The General Manager of the Printing Bureau reports to the Minister of Defence Production and the Bureau issues its own annual report.

N.B.: An organization chart of the Department as of December 31, 1964 appears as Appendix "A". At that time the personnel strength was 2,103.

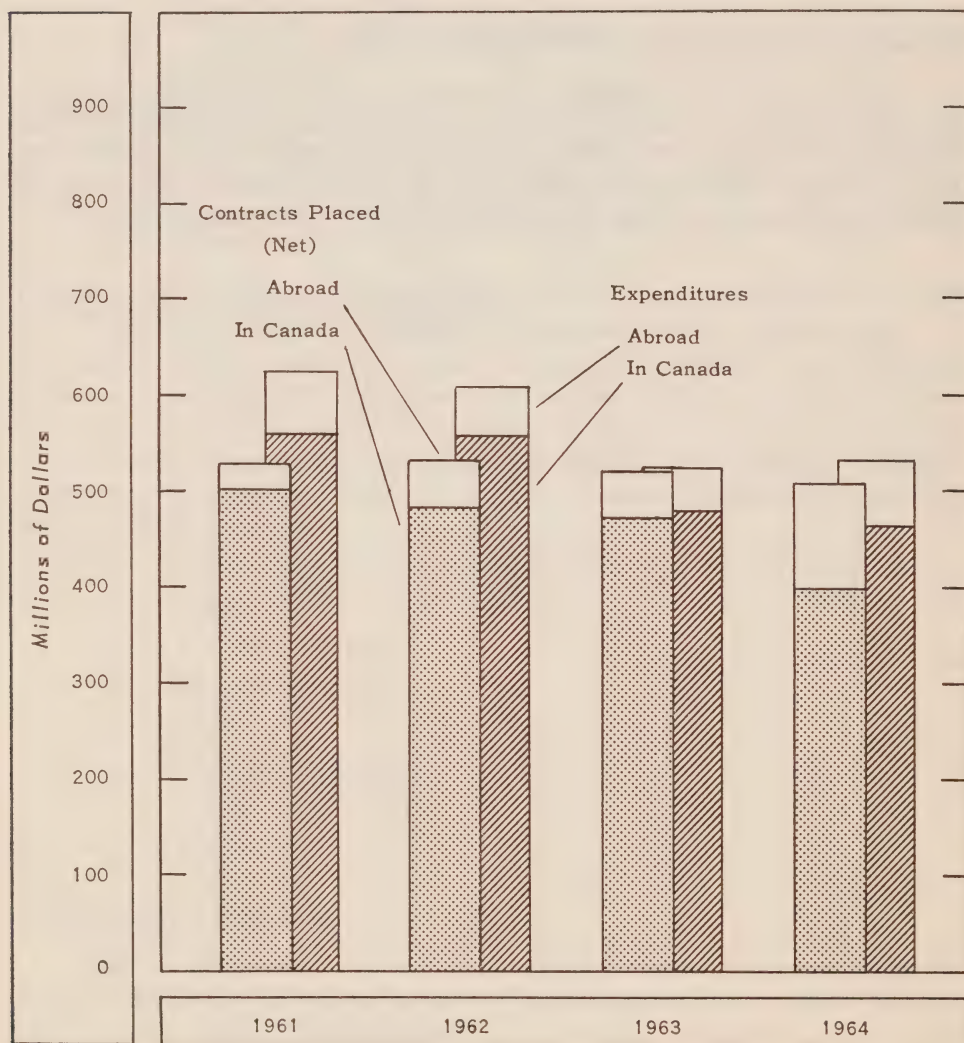
Production and Procurement

Defence Contracting—1964

Contracts having a total net value of \$668.0 million were issued in 1964, a decrease of 2.1 per cent from the total of \$682.0 million in the previous year. The net value of contracts is the total of new contracts issued as well as amendments of purchases that increased or decreased the value of existing contracts.

The largest group of contracts, having a net value of \$507.2 million, was issued for the Department of National Defence. This is 2.9 per cent less than the value of such Canadian Government defence contracts issued in 1963.

Contracts Placed on Behalf of the Department of National Defence and Related Expenditures



Foreign government defence prime contracts placed in Canada through Canadian Government agencies totalled \$102.4 million last year, of which \$84.6 million was for the United States, \$5.6 million for Australia, \$3.4 million for Norway, \$3.8 million for Germany, and \$2.0 million for Britain. The corresponding value of government prime contracts of other nations placed in Canada in the previous year was \$135.2 million.

Contracts issued against this Department's Votes to assist Canadian defence industry had a net value of \$9.6 million in 1964, compared with \$11.3 million in the preceding year.

In addition to the above groups of contracts, a total of \$13.1 million was issued for Canadian external aid and \$35.8 for other Government departments and agencies.

These figures, and those contained in Appendix F of this Report, relate only to prime contracts awarded by the Department of Defence Production and its associated Crown companies, Canadian Commercial Corporation and Defence Construction (1951) Limited. They do not include prime contracts placed directly with Canadian contractors by foreign governments and subcontracts placed in Canada by United States and other foreign defence contractors. Further reference to these direct prime contracts and subcontracts, which are reported to the Department by Canadian companies, is contained in the sections of this Report covering the defence production sharing program and overseas defence exports.

Aircraft Branch

In 1964 the Aircraft Branch let contracts totalling an actual expenditure of \$183.3 million, similar in total to the 1963 actual expenditure. The net value of these contracts, \$117.3 million, was placed to satisfy demands for aircraft, aircraft equipment and related services for Canadian defence requirements. Exports of defence materials to foreign governments resulted in the placement of contracts valued at \$48.7 million.

Two hundred and sixty-seven contracts of a net value of \$63 million were let for the repair and overhaul of Canadian Armed Forces aircraft. The downward trend reflected by this figure was partially offset by an increased activity under the Canada-U.S. Production Sharing Agreement resulting in 11 U.S. Government contracts valued at \$4 million.

Twenty-two million three hundred thousand dollars were committed to assist Canadian industry with development, preproduction engineering and the qualification of new products.

In the fixed wing aircraft field, production of the CT 114 Tutor primary trainer was maintained and 68 of these aircraft were produced. Delivery of the last CF-104 Super Starfighter was made to the RCAF in 1964, as was a further delivery of five CF 104D trainer aircraft. During the year, production of the F 104G aircraft for the Canada-U.S. Mutual Aid Program reached its peak of six aircraft per month, enabling 71 aircraft to be delivered.

Six of the 20 CHSS-2 (Sikorsky) helicopters being assembled in Canada for the Royal Canadian Navy were delivered on schedule. During the last quarter

of the year six CH113A (Vertol) helicopters were delivered to the Canadian Army while the order for CH113 (Vertol) helicopters for the Royal Canadian Air Force was completed in September.

Sixteen J 79 turbo-jet engines for the CF 104 and CF 104D aircraft were produced to complete the Royal Canadian Air Force requirement. In addition, 75 engines were produced for the F 104G MAP program. A total of 167 J-85 turbo-jet engines, power plant for the CT 114 trainer aircraft, were produced during 1964. The delivery schedule of the T 58 turbo-shaft engine for the Canadian Armed Forces helicopter program was maintained. Additional orders for 24 engines were placed.

Foreign government orders accounted for the production of 63 Caribou I aircraft. Thirty-four were delivered to the U.S. Army, 11 to the Government of India and 18 to the Government of Australia, which increased its order from 18 to 25 aircraft.

Flight testing of the Buffalo aircraft, being developed under cost-sharing arrangements between the U.S. Army, the Canadian contractor and this Department, commenced in April. Development of the CL 84 STOL/VTOL aircraft progressed satisfactorily with the roll-out of the first prototype taking place in December. First flight will take place in the spring of 1965.

Progress in the joint Canadian-British government development and evaluation of the CL 89 Surveillance Drone is giving satisfactory evidence that the system is capable of meeting design requirements.

The technical development of the PHE 400 Hydrofoil for the Royal Canadian Navy progressed satisfactorily during 1964.

Chemicals Branch

The procurement segment of Chemicals Branch which became operational March 1, 1964, issued 3,046 contractual documents up to the end of 1964. These had a value of \$42.5 million and involved mainly procurement of petroleum products, heating fuels, pharmaceuticals, dental supplies, photographic stores, cleaning materials, paints and related coatings, rubber and plastic products, research and development services and chemical warfare items.

The Branch actively participated in the Canada-United States Production and Development Sharing Programs. External Aid Procurement was undertaken for Pakistan and Ghana involving such items as paints and related products, plastic structures and sulphur. Under the UNICEF Program contracts were arranged for medical supplies.

Activities related to the Canadian Government Supply Service consisted of two formal agreements for the leasing of Crown-owned facilities at Fort Churchill, Manitoba, for the storage of petroleum products and liquefied petroleum gas. A formal agreement was also executed for the conversion of boilers and installation of handling facilities for liquefied petroleum gas there. Contracts valued at \$1.8 million were placed for petroleum products and liquefied petroleum gas required at Fort Churchill and the Northwest Highway System.

Clothing and Textiles Branch

The Clothing and Textiles Branch began operations in February 1964. In the 11-month period it placed 1,035 contracts for a total value of \$13,382,243 on behalf of the Department of National Defence. The items purchased included inner and outer clothing, fabrics, canvas goods, bedding, flags and towels.

The branch was also responsible for the procurement of the new Canadian flag for all Government departments.

Plans for the introduction of phased delivery contracts for clothing and footwear were completed and introduced to the applicable industries at meetings held with the trade in Ottawa, Montreal and Toronto. With this innovation, contracts will be let on an annual basis with delivery effected during each quarter, based on the quarterly quantity and size required by National Defence establishments. This will have the dual effect of permitting a considerable reduction in National Defence inventories concurrent with reduced administrative costs incurred by both DDP and DND while providing the advantage of volume purchasing; and will enable the contractors to plan production more effectively and confidently. In the administration of phased delivery contracts, consideration is being given to the seasonal nature of some of the industries concerned.

Pilot studies were carried out in respect to a Contract Schedule Control System. This system, based on critical path analyses of Branch contractual procedure, is designed initially to identify problems and delay factors inherent in the flow of activity between the receipt of a contract demand and the award of the contract. This will assist materially in the development of new and improved methods of contract administration and Branch procedure as well as in the provision of improved service to requisitioning departments.

Electrical and Electronics Branch

In 1964, the Electronics Branch was redesignated the Electrical and Electronics Branch and assimilated additional responsibility, for the procurement of electrical equipment and components for Department of National Defence requirements, production sharing and External Aid Office projects, and for civilian procurement related to the Canadian Government Supply Service.

Canadian Defence requirements in 1964 resulted in the placement by the Branch of contracts having a net value of \$96.1 million, an increase of approximately \$4 million over the corresponding 1963 figure.

Contracts placed by the Branch for the defence requirements of other governments during 1964 had a net value of \$37.3 million.

In respect of actual expenditures, Canadian industry received \$107.4 million against defence contracts for Canada, an increase of \$16.8 million above the 1963 figure and \$42.5 million for other governments.

During the past year, various Canadian manufacturers have continued development and production of radar and counter-measures equipment. This work is being conducted for the Canadian Services and also for possible sales to NATO allies. Further refinements were made in the design of a vehicular navigation system, which will allow a completely closed-in tank to navigate from inside instruments.

Contractual action has been taken covering a research and development program in the civil application of Ionospheric Sounding as applied to Automatic High Frequency Communication systems and another development program covers a hand-held Ultra High Frequency Transceiver. Both of these are being undertaken in conjunction with the U.S.

A contract has been issued for the RCN Hydrofoil vessel's fighting equipment. This is an integrated package to provide all the necessary electronic controls for operation of the ship in its anti-submarine warfare role.

Sonar and Sonobuoy development and production has continued during the year, both for Department of National Defence requirements and allied countries.

CF-104 electronics deliveries were completed on nearly all systems. The major activities involved product improvement to the NASARR radar sets.

Deliveries of six operational flight and tactics trainers for the RCAF on the CF-104 Flight Simulator program were completed on schedule and 26 similar trainers were delivered to NATO countries.

Work proceeded on schedule on the Alouette/ISIS Satellite program and the gradual transfer of the activity from the Defence Research Board to industry is proceeding as planned.

Contracts were awarded for a number of new systems required to increase the Anti-submarine detection capability of the CS-2F Tracker aircraft for the Navy.

The electronic requirements for the RCN CHSS-2 helicopter were contracted for during the year and deliveries have been made on time.

Contracts were awarded for the development and production of advanced airborne navigation systems. Development of the airborne Crash Position Indicator/Accident Data Recorder, using the tumbling aerofoil principle, has been largely completed.

Requirements for Canadian-manufactured Doppler navigation equipment continued at a high level.

During the first three months of 1964, the Western portion of the Mid-Canada Line was closed down, with the phase-out completed by March 31, 1964. The effect was to eliminate approximately 50% of the work force on the line.

During the year, a major reconfiguration program in connection with the ADCOM system was commenced, caused by the closing down of a number of the Pinetree Radar Sites. This program is now well under way and should be completed by mid-1965.

Food Products Branch

The Food Products Branch was formed in March, 1964 with the transfer of personnel from the General Purchasing Branch.

The principal role of this branch is the procurement of non-perishable food items and contractual arrangements of food service. During 1964, 534 contractual documents were issued amounting to \$7.9 million.

Under the auspices of the World Food Program, with headquarters in Rome, Italy, milk, cheese, butter, butter oil, flour and oats were procured for the following nations: Bolivia, Senegal, British Guiana, Jamaica, Turkey, Syria, The

Republic of China, Jordan, Ceylon and Honduras. Flour was acquired for Egypt and Lebanon under the auspices of the United Nations Relief Works Administration.

In conjunction with the Department of National Defence, a research project has been undertaken in an attempt to effect economies, establish quality control in certain areas and explore the feasibility of introducing standing offer agreements.

Machinery Branch

This Branch was formed in May, 1964, by amalgamation of the Armament Branch, Machine Tool Branch and two sections of the former General Purchasing Branch.

During the year contracting for armament equipment for Canadian defence requirements amounted to \$28 million. Contracts for general supplies for Canadian defence requirements amounted to a further \$10 million.

Of the \$28 million in orders placed for armament items, contracts with Canadian industry amounted to \$21.5 million. Orders for a further \$7.5 million were received by Canadian firms for U.S. armament requirements such as propellants, fuzes and small arms ammunition. Canadian armament purchases from foreign countries amounted to \$6.5 million.

The major items of Canadian armament production for defence requirements included torpedoes, anti-submarine projectiles and devices, aircraft bombs, anti-tank and small arms ammunition, rocket launchers and pyrotechnic stores.

Efforts towards procurement cooperation with European countries was extended. Joint production of mutual requirements for a light anti-tank rocket and launcher was begun with Norway. Branch participation in NATO Working Groups was increased.

External aid procurement was undertaken for Pakistan, India and Malaysia involving pulping equipment, hydraulic presses, piping, instrumentation and control equipment, transmission towers and heating.

Materials Branch

The Materials Branch began operations in April, 1964. It is responsible for the procurement of ferrous and non-ferrous metals and industrial minerals in primary, semi-fabricated and fabricated forms. It also bears the responsibility for the Government's residual Strategic Materials Stockpile and the assignment of Canada-United States Defense Priorities.

In the nine-month period of its operations in 1964, the branch issued 577 contractual commitments valued at \$1,660,239. Items such as structural steel, reinforcing rods, nuts, bolts and glass were procured for India and Pakistan through the External Aid Program.

Canada's defence and related programs were still dependent, to some extent, on allocations under the United States Defense Materials system for supply of certain metallic and non-metallic materials. This year an increased number of Canadian defence and Atomic Energy contractors again found it advisable to take full advantage of the priority allocations and special assistance was provided to Canadian defence contractors under the United States Defense Production Act.

Canada's major defence programs were again included in the United States Master Urgency List, thus ensuring an equal supply of the strategic and critical materials to meet production schedules.

Mechanical Transport Branch

During the year initial steps were taken towards the centralized procurement of all government vehicles and purchases were made on behalf of the Department of Public Works, the Department of Public Printing and Stationery, Canadian Arsenals Ltd., and the Unemployment Insurance Commission.

The activity of the Branch was in the main, however, centred around the procurement of vehicular equipment required by the Department of National Defence. In addition to purchasing the ordinary types of commercial vehicles, contracts were placed for crash trucks, fire engines, aircraft refuellers, refrigerated vans, tankers, tracked vehicles and various other items of a mobile nature needed by the Armed Forces for transportation, construction and material handling purposes.

Activities relating to international programs were intensified, including vehicles under development as joint defence Canada-United States sharing projects. The Branch represented the Department at NATO meetings concerning vehicles and associated equipment, and supported Department efforts to increase defence equipment sales abroad. A concerted effort to assist industry to participate in the Canada-U.S. Production Sharing Program resulted in briefing sessions being given in the larger industrial complexes throughout Canada.

Development programs were established on behalf of the U.S. Department of Defense (USAF) and a major program established for the study of snow and ice removal.

As part of its non-military activities, the Branch undertook the procurement of special railway coaches and truck-trailer units for the Centennial Commission.

Shipbuilding and Heavy Equipment Branch

During 1964, the level of Shipbuilding and Heavy Equipment Branch activity in respect of specific requirements remained at approximately the same level as 1963. However, the Branch assumed additional responsibility for the procurement of heavy equipment for the Department of National Defence and External Aid Office.

The principal specific requirements handled during 1964 were the completion of the last two destroyer escorts of the six-ship Repeat Restigouche program; the construction of the Pacific Naval Laboratory vessel scheduled for completion this spring, and the completion of a deperming barge.

Construction continued on schedule in the U.K. on three "OBERON" Class Submarines for the RCN. The first vessel, HMCS "OJIBWA", was launched in February 1964 and will be completed late in 1965. The second and third vessels are scheduled for completion mid-1967 and mid-1968.

Conversion and modernization of four St. Laurent Class Destroyer Escorts were completed and similar work undertaken on two additional vessels for com-

pletion in 1965. Nation-wide "firm price" tenders were called in December 1964 for conversion of the last ship of this class, HMCS "FRASER". Conversion of these vessels includes equipping them with variable depth sonar, helicopter landing decks and modernization of communications and armament.

Fleet Maintenance during 1964 placed 81 contracts valued at over \$7,000,000, covering the repair, refit and degaussing of vessels.

Contracts were awarded for ship components, small boats and related stores. A major area of procurement was the equipment for the conversion and modernization program for Destroyer Escorts. Included in this field was the production of a unique Canadian-designed helicopter hauldown system and equipment for replenishment at sea.

During the year contracts amounting to approximately \$1,000,000 were placed in the Canada-United States Defence Production Sharing area by the Branch. These covered such items as torpedo tubes, catapult rams, propellers and marine valves.

Wood Products Branch

In May 1964 the Paper and Wood Division was formed. It took over the responsibility for the procurement of a diversified range of goods usually available from the open competitive market, and previously the responsibility of the General Purchasing Branch. The items involved consist of paper and paper products such as toiletries, containers, packaging and barrier materials; furniture for household, schools, offices and ships; gymnasium and recreational equipment and miscellaneous items basically of wooden or paper construction.

During the year, lumber, pulp, newsprint, school furniture, medical and educational films and technical books were purchased under the Colombo Plan for delivery to Pakistan and Tanganyika.

During the period May 1st to December 31, 1964, the division issued 1,466 contractual documents valued at \$4,712,707.

During October 1964 the purchase function formerly performed by the Department of Public Printing and Stationery was transferred to the Wood Products Branch. The purchase of fine paper and envelopes was placed with the Paper and Wood Division. The procurement of office equipment and printing equipment was transferred to the Machinery Branch.

The Printing and Stationery Division was set up in the Branch to carry out the purchase function for all government departments for stationery, printing, printing supplies and office supplies. Purchases in 1964 for the Division amounted to \$18,395,140.

International Programs Branch

The International Programs Branch, established in 1964, has integrated the activities of the Canadian Commercial Corporation with those of the United States and Overseas Divisions of the Department in line with a recommendation of the Royal Commission on Government Organization. The Corporation has, however, retained its corporate identity.

The International Programs Branch's functions include: coordination of the Department's interests in international programs for cooperation in defence industrial research, development and production, management of the Canadian Commercial Corporation activities, guidance of the Canada-U.S. Defence Production Sharing Program and other elements of the Department's bilateral and multilateral defence activities, and managing External Aid supply activities.

The branch has an office in Washington to maintain liaison with various U.S. Government Agencies. Seven offices are located in major cities of the United States. Officers of the branch are stationed as attachés at the Canadian embassies in Paris, and at Bonn in the Federal Republic of Germany, and at the High Commissioner's Office in London. They assist Canadian industry to participate in European defence requirements. In addition, two officers serve on the Canadian Delegation to the North Atlantic Council in Paris.

Canadian Commercial Corporation

During 1964 the total dollar value of business received from the United States and other governments, international agencies, and departments of the Government of Canada amounted to \$126.3 million. This represents a decrease of some \$20 million from that received in 1963 from the same sources. This decrease resulted mainly from the substantial reduction in U.S. and other government purchases of Caribou aircraft. There was also a decrease in the volume of purchases made on behalf of the External Aid Program. While the dollar volume of business done by the Canadian Commercial Corporation decreased in 1964, the number of enquiries and bids processed was considerably greater than in 1963.

Programs for Maintaining the Defence Industrial Base

Programs aimed at maintaining the defence industrial base in Canada include:

- i) a defence industrial development program
- ii) a defence industrial modernization program
- iii) a strategic components sourcing program.

The development program was established in 1959, to sustain the technological capability of the Canadian defence industry. The program supports the development of defence equipment aimed at meeting the military requirements of the U.S. and other allied governments on a cost-shared basis. From the inception of the program to the end of 1964, a total of eighty-eight defence development projects have been approved or recommended for support, resulting in a significant

increase in the employment of technical and skilled personnel in the Canadian defence industry. Current projects include airborne surveillance navigation systems, short take-off and landing (V/STOL) aircraft, gas turbine stationary engines, submarine detection equipment, off-road vehicles, light-weight missile launchers, communications equipment, and upper-atmospheric research vehicles. During 1964, \$20 million was spent in support of these projects.

An important adjunct to the development program continues to be the government-industry cost-shared Defence Industrial Research Program managed by the Defence Research Board in coordination with the Department of Defence Production.

The defence industrial modernization program was established during 1964 to provide assistance in the modernization of Canadian Defence Industry to ensure its ability to participate in the domestic and foreign defence export market. During the year eleven projects were approved with a value of \$614,000.

The strategic components sourcing program ensures that, wherever possible, Department of National Defence requirements for component parts and materials are met in Canada. Results from this program have a supplementary benefit to industries supplying DND requirements when the same industries are supplying other government's defence requirements. Expenditures in this program during 1964 amounted to \$405,000. Increased DND equipment requirements over the next five years will benefit from this program.

Canada-United States Defence Production Sharing

The Canada-United States Defence Production Sharing Program continued to show gains resulting from strengthened government-to-government and government-to-industry relationships, better procedures, and added emphasis on research and development.

In terms of contracts placed, U.S. Defence Production Sharing business in Canada during 1964 totalled \$166.8 million, a 17% increase over 1963. Total U.S. business in Canada during the 6 years of the program reached \$914.7 million. Comparable figures for Canadian business in the U.S. for 1964 were \$173.3 million with a 6-year total of \$851.5 million. Thus, the cumulative 6-year cross-border balance of production sharing business between Canada and the United States was \$63.2 million in Canada's favour at the end of 1964, down \$6.5 million from the \$69.7 million balance at the end of 1963.

The level of defence production sharing activity between Canada and the United States is measured on the basis of definitions and statistical techniques approved by both countries. Contracts included in the production sharing category are applied research and development, pre-production, production, licence agreement and technical assistance, installation (other than construction), and repair, overhaul and modification. Contracts for "off-the-shelf" general procurement, construction, basic raw materials, fuels and lubricants, or services are not included. Thus, it is not practical to compare figures measuring the Defence Production Sharing Program, which include sub-contracts as well as prime contracts, with

data in other sections of this Report which relate to the prime contracting and CCC business for which the Department is also responsible.

Government-to-government relationships were strengthened through meetings which included the Canada-U.S. Ministerial Committee on Joint Defence, the Production Sharing Steering Committee, the United States Secretary of Defense meeting with the Minister of Defence Production, and meetings of various Working Groups involved with particular problem areas. These meetings were in addition to the normal day-to-day liaison with U.S. Government authorities by the Department's Washington office and Field Liaison Officers.

Close liaison was maintained with other Canadian Government departments, particularly National Defence, External Affairs, Finance, and Trade and Commerce in matters relating to the production sharing program.

Relations with Canadian industry were strengthened as a result of closer contact by the production branches of the Department. Information was provided to industry on a wide range of opportunities in both the prime and sub-contract area, and procedural matters were refined to ensure faster reaction to bid solicitations.

An enlarged and revised third edition of the "Production Sharing Handbook" was published during the year and given wide distribution in the United States and Canada.

Development Cooperation Program

The development program sponsored by the Department is aimed at stimulating development activity in Canadian defence industry by enabling it to undertake research and development work aimed at meeting the requirements of the United States or other Allied Armed Forces. Financing of the program is carried out on a cost-shared basis between the Department, Canadian industry, and the U.S. and other allied governments. Total new commitment from all sources in 1964 augmented the level of the program by \$53 million. This is a significant increase over 1963 for which the comparable figure is \$24 million, and is particularly noteworthy since research and development is the forerunner of eventual production.

Overseas Defence Exports

The concept of national self-sufficiency in the design, development and production of costly and complex military equipment is rapidly giving way to the necessity for economic and industrial interdependence and scientific cooperation. Accordingly, the Department intensified its effort during 1964 to establish bilateral arrangements with its NATO partners and other allied countries for closer cooperation in the fields of research, development and production of military equipment.

The Anglo-Canadian Committee on Research Development and Production, established in 1963 for mutual examination of defence requirements, met in London during 1964. Resulting from this meeting, a number of potential requirements for such Canadian defence products as vehicle navigation sets, anti-

personnel mines, underwater sound equipment, etc., were identified. Other encouraging areas leading to possible joint development and future production of specialized Canadian products are being actively pursued by departmental project officers and the Department's officers in London.

Arising from exploratory discussions in 1963, a departmental team visited The Federal Republic of Germany during 1964 to explore areas of possible co-operation in the fields of research, development and production. As a result of these meetings, an understanding was reached with the German Ministry of Defence to work with the Department toward the establishment of joint development programs in areas where the defence industrial capabilities of the two countries could be coordinated in defence projects of common interest. The Federal Republic of Germany is now examining and evaluating a number of Canadian developments for possible introduction into the German armed forces.

During 1964 departmental teams visited Belgium, France, the Netherlands, Sweden, Norway and Denmark to develop further opportunities for closer collaboration in cooperative research, development, and production of military equipment.

The English edition of a publication entitled "Canadian Defence Products" was distributed in 1964 through Trade Commissions and Departmental officers abroad to military and procurement authorities of NATO and other friendly countries. This publication is aimed at assisting foreign governments and their defence industries in identifying defence products and services available in Canada. French and German editions of the publication will be ready for distribution in 1965. Another publication to be known as "Canadian Research and Development Facilities" is being prepared and will be distributed in 1965.

Total overseas defence export business in 1964 amounted to nearly \$60 million. This is an increase of \$7 million over 1963. Seventy-seven Canadian firms participated in this business exporting to 40 foreign countries (excluding United States).

NATO Research Development, Production and Infrastructure

In 1964 Canadian representatives continued to participate in a wide range of NATO technical committees and programs with the object of fostering increased cooperation in defence research, development and production (RDP). Canadian representation is coordinated by the Department. Canada has taken a prominent role in initiating NATO cooperative projects and developing the philosophy of NATO basic agreements which can provide the framework for cooperative RDP projects. Effective collaboration among NATO Countries continues to form the basis of Canadian defence production planning for overseas cooperation. Current NATO cooperative projects in which Canada is a participant include the M72 Light Anti-Tank Weapon and Mobile Hostile Weapon Locating Radar. The CL-89 Surveillance Drone currently being developed jointly by Canada and Britain has been offered to NATO as a cooperative RDP project. NATO has recently been informed of Canada's interest in participating with the United States and Germany in the joint development of the Main Battle Tank.

Infrastructure

Canada is actively participating in the plan for the air defence of NATO Europe (NADGE). This is the largest NATO infrastructure project yet attempted and the most complex. The NATO Council has agreed that Canadian firms should participate up to the equivalent of the Canadian contribution, or some \$17 million. A meeting of all interested firms from NATO countries has been arranged to take place early in 1965.

Canadian firms have been encouraged to participate more actively in other NATO Common Infrastructure programs. To facilitate these efforts, Canada obtained an amendment to the competitive bidding regulations allowing a two weeks extension of time for the submission of bids.

The Canadian Government Supply Service

A Government decision, taken on September 4, 1963, directed that the recommendations of the Royal Commission on Government Organization relating to the formation of a central purchasing and supply agency be implemented. The responsibility for carrying out this decision was assigned to the Department of Defence Production.

A plan of organization for a future Department of Supply was prepared by the Department. This plan required the integration of the purchasing organization of Defence Production with the supply functions of warehousing and distribution, specifications and standards, quality assurance, traffic management and cataloguing. In the plan of organization these functions were grouped with the regional purchasing function of Defence Production and Crown Assets Disposal Corporation to form a Canadian Government Supply Service.

In accordance with the Government directive, Defence Production has established a central purchasing agency to serve all departments and agencies. The first stage of implementation, that of transferring to the Department the procurement and maintenance responsibility, hitherto undertaken by the Department of Public Printing and Stationery, with respect to office machinery and stationery, has been completed.

Four branches of the integrated supply service were formed during the year:

- (a) **The Regional Purchasing Branch** was established on January 15th, 1964, to provide an overall regional purchasing service for the Navy, Army, RCAF and the Defence Research Board. The new Branch, therefore, continued the regional purchasing function of the 14 Canadian district offices of the General Purchasing Branch. On April 1st, it assumed the local procurement responsibilities formerly discharged by the London, England; Paris, France; Koblenz, Germany; Washington, D.C., and Dayton, Ohio, offices. During the year Canadian methods, procedures and equipment were introduced into the London, Paris and Koblenz Offices.

Prior to the formal constitution of the Clothing and Textiles Branch, Chemicals Branch, Food Products Branch, Machinery Branch, Materials Branch, and the Mechanical Transport Branch on April 1st, 1964, the Regional Purchasing Branch was responsible for the remaining activities of the General Purchasing Branch.

In 1964, the Regional Purchasing Branch issued 112,073 contractual documents valued at \$159,341,000. Of these, 2,649 valued at \$29,372,000 were issued by Headquarters elements during the months of January, February and March. The 14 regional offices located across Canada processed 103,572 contractual documents having a total value of \$54,969,000 for goods and services required to support the daily activity of regional defence establishments.

For their part, overseas offices of the Branch in Britain, France and The Federal Republic of Germany issued departmental contracts valued at \$9.5 million, while the United States Office, located in Washington, issued contracts amounting to \$65.5 million to handle all procurement from the United States Armed Services.

During 1964, specific purchasing responsibilities were assigned to the regional offices in Ontario, Quebec, Manitoba and Alberta, on behalf of the Departments of Citizenship and Immigration; National Health and Welfare; Public Works and the Canadian Corporation for the 1967 World Exhibition.

- (b) **The Warehousing and Distribution Branch** was established in August 1964. The Branch assumed responsibility for the national distribution of stationery for all Departments and Agencies on August 17, 1964 as well as providing direct supply support to the Canadian Government Printing Bureau through the operation of paper, printing material, and technical maintenance stores. This constituted the major supply assignment undertaken by the Branch and the activity is under close surveillance within the newly formed No. 1 Supply Centre, Capital Region.
- (c) **The Cataloguing Branch**, formed April 1, 1964, operates in conjunction with the cataloguing personnel in the Department of National Defence as the NATO military cataloguing structure is being used by the Supply Service. It is intended that the military and civil cataloguing systems be integrated as completely as possible.
- (d) **The Traffic Management Branch** formed in April, 1964, undertook the analysis of the freight content of purchases. Arrangements were completed for an agreed charge contract between the Federal Government and the Canadian Railways covering the movement of coal in Western Canada which resulted in substantial savings.

The Quality Assurance and Specifications and Standards Branches will be fully established in 1965.

The Regional Supply Centre. The Government directive further instructed the Department to develop a system of consolidated warehousing and test it in a pilot operation. A study to help determine the basis of such a pilot operation was carried out by a firm of management consultants in British Columbia. The consultants believed that a pilot operation in an area where there were many federal government users such as Ottawa-Hull would give the best testing results.

A plan has been prepared for establishing the pilot operation in the Ottawa-Hull area. An important feature of the plan is to develop and prove out the policies and procedures for an integrated supply system linking the seven supply functions and to demonstrate that the service and cost objectives can be met before expanding the Canadian Government Supply Service.

In September, 1964 the first supply centre was established, as the No. 1 Supply Centre—Capital Region, in Hull. Here the pilot operation will be developed.

In connection with the development of the Canadian Government Supply Service, a team of analysts worked with the functional branches to develop systems, procedures and forms for the operation of No. 1 Supply Centre. Basic requirements for an effective inventory control were established and test runs were made of available inventory control systems. A determination was made of data processing requirements and procurement action was initiated for the rental of equipment.

Financial policies calling for total recovery of costs from customer departments and agencies, coupled with a self-supporting revolving fund financial structure, were drafted by the Comptroller's Branch. These policies, together with other broad programs for implementation of the C.G.S.S., have been approved in principle by the Treasury Board. Further long-range plans have been formulated for the development of modern concept of financial management, along the lines recommended by the Royal Commission on Government Organization.

Advisory and Services Branches

Comptroller's Branch

The Comptroller's Branch provided complete accounting service for the Department of Defence Production, Department of Industry, and the Canadian Commercial Corporation, as well as commitment and disbursement control on behalf of Emergency Measures Organization, at Civil Defence College, Arnprior. Services on behalf of the Corporation included, as usual, the operation of all bank accounts and special financial and accounting administration as required. Complete bookkeeping records, based as far as possible on commercial practice, were kept of the transactions against the Parliamentary appropriations of Department of Defence Production and Department of Industry, and of all the assets and liabilities for which responsibility lies with the Minister.

During 1964 the volume of accounting of both the Department and of the Corporation continued to increase with respect to various Revolving Fund projects, assistance to Canadian industry, development of technological capabilities, Canada-United States Production Sharing and other trade expansion activities.

A new Division was organized to plan and develop financial management and accounting procedures for the Canadian Government Supply Service.

The financial position of the Department as at March 31, 1964, is shown in the Balance Sheet and related schedules given in Appendix G, duly certified and reported upon by the Auditor General.

Financial Adviser's Branch

The Financial Adviser's Branch continued to advise on the development and application of financial policies including those related to purchase contracts, and to review major contract proposals to ensure the proper application of departmental financial policies. Contract audit reports were reviewed and assistance rendered in resolving cost and profit problems arising from them.

During the year studies were undertaken on achieving additional incentive type contracts and the processing of identical bids. The Branch also participated in reviews covering the financial aspects of programs relating to the modernization of the defence industry, Defence Industrial Research assistance and Canadian Commercial Corporation policies and procedures. It provided information on contractor liability for insurance, taxes and duties and advised on related problems arising from contract negotiations.

Applications for capital assistance and additional capital cost allowances (accelerated depreciation) were reviewed in the light of departmental policy. Declarations of surplus items were screened for approval and the use of Crown equipment on non-Canadian defence work was assessed for rental charges. The Branch administered municipal grants made in lieu of taxes on Crown-owned defence plants operated by private contractors. It also coordinated the estimates for both the Department of Defence Production and the Department of Industry and the appropriations required by associated Crown Companies.

The Branch served in an advisory capacity to the Department of Industry and reviewed the cost and profit positions of follow-on orders resulting from assistance provided under that Department's Development Sharing Program. Applications for income tax exemptions made to the Area Development Agency by industries establishing plants in designated areas were also reviewed.

General Services Branch

The General Services Branch provided administrative services to the Department.

In addition to such normal services as communications, office supplies and stationery, filing, messenger services and central typing facilities, it provided the special services required in support of the Department's purchasing role. These included the maintenance of lists of suppliers, the typing, duplication and distribution of invitations to tender, contracts and other contractual documents and the receipt, custody and opening of tenders.

A rigid time control over all individual activities making up the purchasing function is being established through a new Schedule Control Section.

During the year, the Branch was active in the adjustment and development of procedures required by the assimilation by the Department of purchasing responsibilities for other departments. The Branch participated in the preparation of a new volume of Canadian Defence Products.

The Information Division has been established to look after the informational, educational and promotional activities of the Departments of Defence Production and Industry. The Data Processing Division provides statistical and data processing service to the two Departments. It also provides basic data for industrial development work by researching import documents and identifying products or groups of products which are imported in sufficient volume to warrant manufacture in Canada.

The Industrial Security Division is responsible for the Security and protection of classified contracts, implementation of national and international security requirements and policies as they affect Canadian defence contracts and the inspection and surveillance of certain plants.

During the past year, the more significant purchase documents were made available in both languages. Bilingual purchasing forms are now in use by both our Regional Offices as well as by the Department's Head Office. The Department issues all administrative circulars bilingually.

Legal Branch

The Legal Branch provided all other Branches of the Department and the Deputy Minister's Office with legal services.

The preparation of formal contracts with Canadian industrial firms continued to be one of the principal functions of the Branch. These contracts covered procurement of defence supplies for the Canadian Armed Services, the United States Military Departments (under the Canada-United States Defence Production Sharing Program) and other governments; the procurement of machinery and equip-

ment for use in the production of defence supplies; financial aid to Canadian industry for research and development and for the establishment of productive capacity and qualified sources of supply; the sale of Crown-owned production equipment; leases, settlement agreements, licenses and technical assistance agreements; and other miscellaneous matters.

The Legal Branch also prepared or reviewed formal contracts between the Department and agencies of other governments, including NATO countries, covering the sale to such governments of defence supplies produced by Canadian industry.

An increasing volume of legal services was rendered to the Department of Industry regarding legal aspects of Canadian industry's proposals and representations to that Department.

The transfer of various functions to the Department of Defence Production introduced new legal work for agencies such as the Emergency Measures Organization, the National Design Council and the Canadian Government Printing Bureau. In addition, as the Department undertook purchasing for the Canadian Corporation for the 1967 World Exhibition, it was necessary for the Legal Branch to prepare and advise on the form of a wide variety of contracts and agreements to be used in that activity.

During the performance of contracts the Legal Branch was called upon to give legal interpretations, especially where claims arose by or against the Crown, which might lead to litigation. Advice was given on such matters as assignment of contracts, sub-contracting patents, licenses, proprietary rights, inventions, royalties, title, risk, insurance, tax and land matters and termination of contracts.

The Branch handled all legal work for the Canadian Commercial Corporation and from time to time gave advice regarding certain other Crown agencies which report to the Minister, such as Defence Construction (1951) Limited, Crown Assets Disposal Corporation and Canadian Arsenals Limited.

Management Services

The Management Services Branch carried out a complete survey of the Office Machine Division of Machinery Branch. Pilot units were established to test the proposed Schedule Control and Contract Management Information System. Surveys were also undertaken in Contracts Authorization Division and Comptroller's Branch.

The result of a study of allocation procedures in the Departments of Defence Production and Industry was the assignment to specific branches of responsibility for:

- (i) purchasing in accordance with the Federal Supply classification and
- (ii) industrial development in accord with the DBS Standard Industrial Classification.

The general phase of an Electronic Data Processing feasibility study was completed and the detailed phase was begun. Requirements for photocopy equipment were surveyed and assistance was provided to several units in regard to record keeping problems.

The Management Analysis Division has assisted in the transfer of purchasing responsibility from the Department of Public Printing & Stationery to the Department of Defence Production, and in planning the integration of other departments' purchasing work.

The Purchase Research Division organized and directed a survey of purchases made by major departments of government. This involved the abstraction and tabulation of information from about 400,000 purchase documents. The purpose was to obtain information on the value and nature of materials and services bought by the Government in order to develop plans and guide-lines for the consolidation of government purchasing and supply.

The Facility Evaluation Division carried out special investigations on technical problems; assessments on research and development potential; clarifications of problems relating to contracting performance and Canadian content; and assisted in locating sources of supply and the selection of companies capable of tendering on U.S. and Canadian sub-contracts. The information collected was made available to all concerned and has been of material assistance in improving departmental source and commodity listings.

Personnel Branch

The reorganization of the Personnel Branch (formerly Administration Branch) placed special stress on recruiting, career planning and appraisal, classification and staff training. The number of employees in the Department of Defence Production rose from 1611 to 2103 (and in the Department of Industry from 85 to 333) during the year.

Transfers of staff took place from the Canadian Commercial Corporation, Canadian Arsenals Limited, Defence Construction (1951) Limited, and the Procurement, Purchasing and Stores Branch of the former Department of Public Printing and Stationery. The first phase of staffing for the Department of Industry was completed with most of the key positions filled. Considerable progress was made both in the classification and recruiting for the Canadian Government Supply Service. Planning started on the major classification conversion program in preparation for the introduction of Collective Bargaining and Arbitration in the public service.

The branch designed and conducted the following courses: Orientation (all levels including newly-appointed Directors); Contract Negotiation; Management Accounting and Management Controls. French-language training was organized for all levels. Seminars and workshops were conducted in management development, functions of related government agencies, purchasing practices, industrial engineering and speechcraft. A study of training needs was conducted for the Canadian Government Printing Bureau and a program designed to meet their special situation was initiated.

Library services were expanded to meet the increasing information demands of the newly-recruited officers.

Emergency Supply Planning Branch

The Emergency Supply Planning Branch made further progress with plans and arrangements to bring the War Supplies Agency into immediate, effective existence in the event of a nuclear war. The Agency would operate at the national, regional, zonal and local levels of government and would assume control of the production, distribution and pricing of supplies for all civilian and military purposes except for certain aspects of the agricultural and fishing industries.

The stand-by staffing of the national and ten regional components was maintained at a satisfactory level during 1964.

Research programs completed during the year included the identification of bulk and retail stocks of food, fuels, and certain essential materials, the mapping of bulk petroleum storage points and studies of the effects of a nuclear attack on selected major industries.

A revised system for the collection and storage of WSA essential records was developed and put into effect at the national and regional levels.

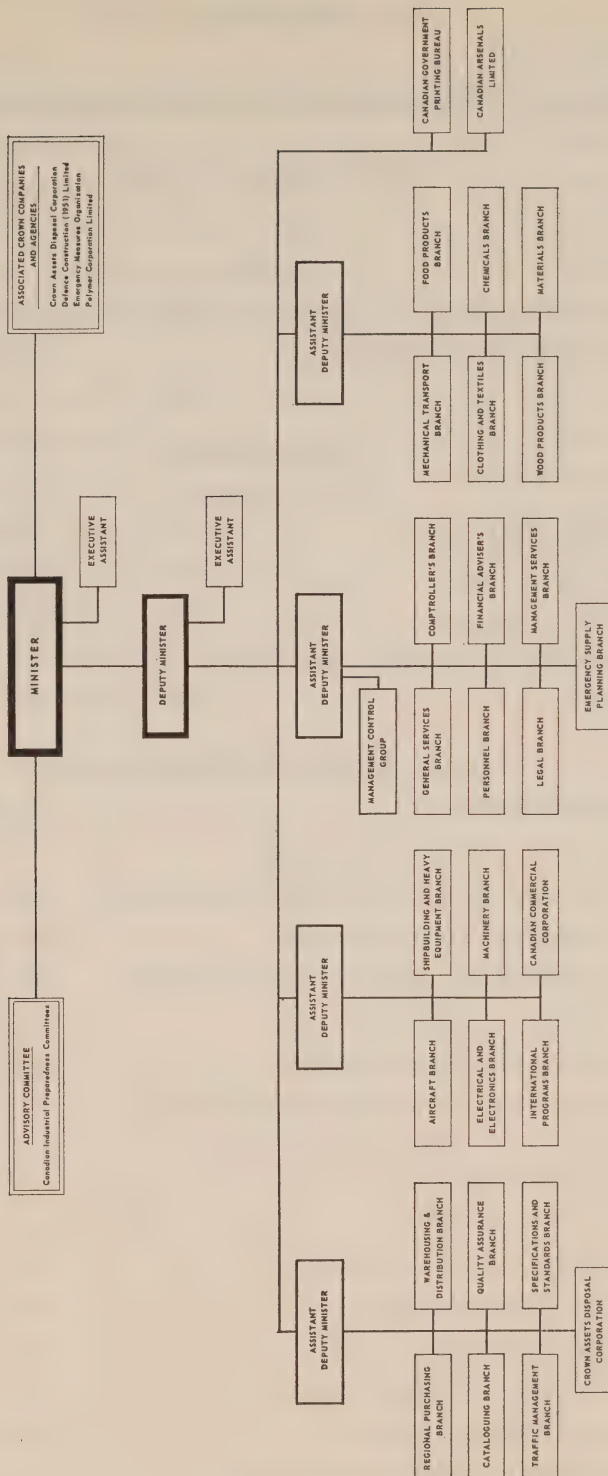
Two pamphlets, "Emergency Organization for Industry" and "Essential Records for Industry" were prepared.

In consultation with the Emergency Measures Organization, liaison was maintained with NATO agencies and regional liaison was established with the United States Department of Agriculture. Considerable work was done by the Branch in the preparation of resource data for various exercises including one sponsored by NATO.

Two training courses were conducted by Branch Headquarters staff at the Canadian Civil Defence College for stand-by staffs of the War Supplies Agency. Branch officers lectured to approximately forty courses sponsored by other departments and agencies in Ottawa.

DEPARTMENT OF DEFENCE PRODUCTION
Organization as at December 31, 1964.

Appendix A



Appendix B

Senior Personnel of the Department

as at December 31, 1964

Minister

The Honourable C. M. Drury, P.C., C.B.E., D.S.O., Q.C., M.P.

Executive Assistant to the Minister F. M. Wanklyn

Deputy Minister

G. W. Hunter

Assistant Deputy Minister W. H. Huck
Assistant Deputy Minister D. B. Mundy
Assistant Deputy Minister B. G. Barrow
Executive Assistant to the Deputy Minister W. J. Mulock

Procurement Branches

Director, Aircraft Branch A. D. Belyea
Director, Electrical and Electronics Branch J. S. Glassford
 Deputy Director, Electrical and Electronics Branch .. S. I. Comach
Director, International Programs Branch R. M. Trites
 Deputy Director, International Programs Branch M. L. Card
Director, Machinery Branch F. Dugal
 Deputy Director, Machinery Branch J. R. Brisson
Director, Shipbuilding and Heavy Equipment Branch J. C. Rutledge
 Deputy Director, Shipbuilding and Heavy
 Equipment Branch J. J. McKennirey
A/Director, Chemicals Branch D. F. Gray
Director, Clothing and Textiles Branch A. M. Guerin
Director, Food Products Branch A. H. Mathieu
Director, Materials Branch R. D. Hindson
Director, Mechanical Transport Branch N. B. MacDonald
Director, Wood Products Branch K. O. Roos
 Deputy Director, Wood Products Branch G. P. O'Keefe

Advisory and Service Branches

Comptroller	G. F. Wevill
Deputy Comptroller	T. E. Brown
Financial Adviser	R. M. Keith
Deputy Financial Adviser	N. R. MacLean
Director, Contracts Authorization Division	J. D. Langley
Director, Emergency Supply Planning Branch	G. E. Woodside
Director, General Services Branch	J. J. Tevlin
Director, Legal Branch	F. F. Waddell
Deputy Director, Legal Branch	C. S. Stevenson
Director, Management Control	A. R. Bailey
Director, Personnel Branch	H. R. Kotlarsky
Director, Management Services Branch	J. M. DesRoches
Director, Regional Purchasing Branch	D. M. Erskine
Director, Traffic Management Branch	G. J. Whyte
Director, Warehousing and Distribution Branch	R. C. D. Laughton
Deputy Director, Cataloguing Branch	C. E. Adams

Canadian Government Printing Bureau

General Manager	C. B. Watt
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Appendix C

Distribution of Departmental Staff

as of December 31, 1964

Deputy Minister's	11
Aircraft	175
Cataloguing	7
Chemicals	37
Clothing and Textiles	36
Comptroller's	113
Electrical and Electronics	183
Emergency Supply Planning	62
Financial Adviser's	50
Food Products	7
General Services	345
International Programs	138
Legal	15
Machinery	166
Management Control Group	11
Management Services	27
Materials	8
Mechanical Transport	33
Personnel	112
Quality Assurance	3
Regional Purchasing	253
Shipbuilding and Heavy Equipment	115
Specifications and Standards	5
Traffic Management	8
Warehousing and Distribution	140
Wood Products	43
Grand Total	<hr/> 2,103 <hr/>

Appendix D

Crown Companies Associated with the Department of Defence Production

as at December 31, 1964

Canadian Arsenals Limited

President	J. R. Brisson
Vice-President	G. W. Hunter

Canadian Commercial Corporation

President	M. H. Lamoureux
Secretary and Legal Adviser	F. F. Waddell
Comptroller	G. F. Wevill

Crown Assets Disposal Corporation

President	Louis Richard
General Manager	D. L. Thompson
Vice-President	G. W. Hunter
Assistant General Manager	J. M. Mackinnon
Secretary and Legal Counsel	R. LaPrairie

Defence Construction (1951) Limited

President and General Manager	A. G. Bland
Legal Counsel	J. D. Jennison
Secretary	N. J. Smith
Treasurer	N. Tokaryk

Polymer Corporation Limited

Chairman of the Board	E. J. Brunning
President and Managing Director	E. R. Rowzee
Vice-President	E. J. Buckler
Vice-President	L. D. Dougan
Vice-President	R. E. Hatch
Vice-President	I. C. Rush
Vice-President	S. Wilk
Treasurer	G. Bracewell
Secretary and Chief Legal Officer	W. J. Dyke

Appendix E

Regional Purchasing Offices and Offices Located Outside Canada

Addresses as at December 31, 1964

Regional Purchasing Offices

In Canada

ST. JOHN'S, NFLD.	Room 401, Main Post Office Building, Water Street, (P.O. Box 487).
HALIFAX, N.S.	Room 527, Federal Building, Bedford Row, (P.O. Box 1655).
SAINT JOHN, N.B.	Room 408, Sadim Building, Canterbury and Duke Streets.
QUEBEC, P.Q.	Gare Maritime Champlain, Chemin des Foulons.
MONTREAL, P.Q.	685 Cathcart Street.
OTTAWA, ONT.	953 Somerset Street West.
TORONTO, ONT.	Room 1214, Mackenzie Building, 36 Adelaide Street East.
LONDON, ONT.	388 Dundas Street, (P.O. Box 2275—Terminal "A").
WINNIPEG, MAN.	Room 326 E, 344 Edmonton Street.
REGINA, SASK.	Room 302, New Post Office Building, Cornwall and S. Railway Streets.
CALGARY, ALTA.	Room 725, Public Building, 8th Avenue and 1st Steet East.
EDMONTON, ALTA.	Room 309, Federal Building, 107th Street and 99th Ave.
VANCOUVER, B.C.	Harry Stevens Building, 125E, 10th Avenue.
VICTORIA, B.C.	Room 318, Canada Customs House, 816 Government Street.

Outside Canada

WASHINGTON, U.S.A.	Canadian Department of Defence Production, 2450 Massachusetts Ave., (P.O. Box 4897, Cleveland Park Station), WASHINGTON 8, D.C., U.S.A.
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Sub-OfficeMCL DDP
Wright-Patterson Air Force Base,
OHIO, U.S.A.

LONDON, ENGLANDCanadian Department of Defence Production,
1 Grosvenor Square,
LONDON W. 1, England.

PARIS, FRANCECanadian Department of Defence Production,
1 rue Chanez,
Paris 16^e, France.

KOBLENZ, GERMANYCanadian Department of Defence Production,
54 KOBLENZ-PFAFFENDORF,
Emserstrasse 21, Germany.

Other Offices Outside Canada

WASHINGTON, U.S.A.Canadian Department of Defence Production,
2450 Massachusetts Ave.,
(P.O. Box 4897, Cleveland Park Station),
WASHINGTON 8, D.C., U.S.A.

Sub-OfficeMCL DDP
Wright-Patterson Air Force Base,
OHIO, U.S.A.

LONDON, ENGLANDCanadian Department of Defence Production,
1 Grosvenor Square,
LONDON W 1, England.

AYRSHIRE, SCOTLANDCanadian Department of Defence Production,
c/o Scottish Aviation Limited,
Prestwick Airport,
Ayrshire, Scotland.

PARIS, FRANCECanadian Department of Defence Production,
c/o Canadian Embassy,
35, avenue Montaigne,
PARIS 8^e, France.

NEW YORK, N.Y.Consul and Assistant Trade Commissioner,
Department of Trade and Commerce,
c/o Canadian Consulate General,
680 Fifth Avenue,
NEW YORK 19, N.Y., U.S.A.

ROME, N.Y.ROP/DDP
Rome Air Materiel Area,
Griffiss Air Force Base,
ROME, N.Y., U.S.A.

BEDFORD, MASS.Canadian Department of Defence Production,
L.G. Hanscom Field,
BEDFORD, Mass., 01731 U.S.A.

PHILADELPHIA, PA.Canadian Department of Defence Production,
c/o U.S. Army Electronics Support
Command/DetA
ATTN: SELSC/P-CD
225 South 18th Street,
PHILADELPHIA, Pa., 19103 U.S.A.

DETROIT, MICH.Canadian Department of Defence Production,
c/o U.S. Army Ordnance District,
1580 East Grand Blvd.,
DETROIT 11, Mich., U.S.A.

ST. LOUIS, Mo.Canadian Department of Defence Production,
AVCOM,
P.O. Box 209, Main Office,
ST. LOUIS, Mo., 63166, U.S.A.

LOS ANGELES, CALIF.Canadian Department of Defence Production,
c/o Los Angeles Contract Management
District,
1206 South Maple Avenue (Room 546),
LOS ANGELES 15, Calif., U.S.A.

CHICAGO, ILL.Canadian Consulate General,
310 South Michigan Avenue,
Suite 2000,
CHICAGO 4, Ill., U.S.A.

NEW ORLEANS, LA.Consul and Assistant Trade Commissioner,
Department of Trade and Commerce,
c/o Canadian Consulate General,
Suite 1710,
225 Baronne Street,
NEW ORLEANS 12, La., U.S.A.

OFFICE OF DDP REPRESENTATIVE ..OTAN-NATO,
TO THE NORTH ATLANTIC Place du Maréchal de Lattre de
COUNCIL Tassigny,
 PARIS 16^e, France.

DEFENCE PRODUCTION ATTACHÉc/o Canadian Embassy,
 35 avenue Montaigne,
 PARIS 8^e, France.

DEFENCE PRODUCTION ATTACHÉc/o Canadian Embassy,
CANADIAN REPRESENTATIVE TO Zitelmannstrasse 22,
THE EUROPEAN ORGANIZATION BONN, Germany.
FOR DIRECTION AND CONTROL
F-104G

Appendix F

Statistics of Defence Contracts and Expenditures

The statistical tables in this Appendix contain information for calendar years 1963 and 1964 on contracting and related spending in connection with the Canadian defence procurement and construction program, foreign government prime defence contracts placed through Canadian Government agencies, and contracts placed on behalf of other Canadian Government Departments and agencies. These statistics measure the value of contracts as they are issued to contractors and suppliers and the value of payments as they are made to them.

The net value of contracts issued, as shown in these tables, includes the value of amendments which increased or decreased commitments under existing contracts, as well as the value of new contracts. In some cases, therefore, "credit" net values are shown because decreasing amendments to contracts placed in earlier years have exceeded the value of new contracts and increasing amendments issued.

The tables are shown in pairs, with the first "a" containing data on the net value of contracts issued and the second "b" containing the value of expenditures against these contracts and against similar contracts placed in earlier years.

Tables 1-a and 1-b contain summary statistics relating to all contracts issued by the Department of Defence Production and its associated Crown companies, Defence Construction (1951) Limited and Canadian Commercial Corporation, with the exception of those involving payments out of the Defence Production Revolving Fund. Both contract and expenditure data are broken down by the various sources that requisition and pay for the goods or services involved.

Tables 2-a and 2-b contain statistics related to contracting by the Department of Defence Production and Defence Construction (1951) Limited on behalf of the Department of National Defence. Payments against these contracts are made from funds appropriated by Parliament for the Department of National Defence. The figures in these tables are broken down by defence programs (as defined below) and the country in which the prime contractor is located (based on the address to which the contract is sent). The data contained in Tables 2-a and 2-b are similar to those contained in Tables 1-a and 1-b to Tables 4-a and 4-b in previous Annual Reports of the Department.

Tables 3-a and 3-b provide data relating to prime defence contracts placed in Canada by foreign governments through Canadian Government agencies, such as Canadian Commercial Corporation. The Department of Defence Production issues most of the contracts for Canadian Commercial Corporation.

Tables 4-a and 4-b relate to certain activities in support of Canadian defence industry that are financed from Defence Production parliamentary appropriations.

Definitions of the Defence Programs

The general concept involved in this defence program classification is that of relating all procurement, as far as possible, to a readily identifiable military end-item, such as an aircraft, a ship, an electronic device, a gun, a type of ammunition, an item of clothing, etc. Thus a particular program includes, in addition to the end-item, those components or parts that become an integral part of the end-item, as well as associated services such as design and development, installation, maintenance and repair and overhaul.

AIRCRAFT: This program includes complete aircraft and items to be physically incorporated in complete aircraft, such as airframes, engines, propellers, navigational and flight instruments, electrical systems and their components. The repair and overhaul of aircraft is also included. Excluded are accessories such as armament and communication equipment, photographic equipment, training devices and ground support equipment.

ARMAMENT: This program includes weapons such as small arms, guns, howitzers and their components; light, medium and heavy ammunition of all types, including mines, depth charges and torpedoes; rockets and missiles and their launchers; and explosives and certain defence chemicals. Electronic fire controls are not included.

ELECTRONICS: Electronics and communication equipment of all types are in this program, including telephone, telegraph, radio and radar equipment. Underwater sound equipment, fire control equipment and flight and tactics simulators are also included. Development, maintenance, management and transportation services associated with the procurement of electronic and communication equipment are in this program. (This program was formerly identified as the Electronics and Communication Equipment program.)

SHIPS: This program includes destroyer escorts, frigates, minesweepers, aircraft carriers, and other floating equipment, and ship components such as hulls and superstructures, propulsion machinery, boilers, condensers, heating and electrical systems. Reconversion, refit and repair of ships are also included. Armament and electronic gear are excluded.

TANK-AUTOMOTIVE: Included in this program are tanks and vehicles of both armoured and non-armoured types. Cars, trucks and buses and their components, such as tires and tubes, are included. Excluded are armament and electronic equipment.

FUELS AND LUBRICANTS: This program includes petroleum, gas, coal and coke, and their products, principally aviation turbine fuel and gasoline, motor vehicle gasoline, and heating fuels.

CLOTHING AND EQUIPAGE: All items of personal clothing, including footwear, and of personal equipment, such as mess kits and steel helmets, are in this program.

CONSTRUCTION: This program includes all construction contracts for building structures, runways, etc., as well as for consultant services, repairs and maintenance. Most of these contracts are placed by Defence Construction (1951) Limited.

Table 1-a.—Net Value of All Contracts Issued

Sources for which Contracts Issued	1963	1964
	\$000	\$000
Department of National Defence	522,277	507,158
Department of Defence Production:		
Votes in Support of Defence Industry	11,330	9,565
Foreign Governments:		
United States	96,868	84,557
Britain	1,372	2,018
Federal Republic of Germany	2,693	3,807
Other Governments	34,239	12,035
Canadian External Aid	11,646	13,075
Other Government Departments and Agencies	1,543	35,769
Total	681,968	667,985

Table 1-b.—Expenditures against All Contracts Issued

Sources Paying the Contracts	1963	1964
	\$000	\$000
Department of National Defence	524,780	534,260
Department of Defence Production:		
Votes in Support of Defence Industry	16,776	10,489
Foreign Governments:		
United States	152,835	138,719
Britain	1,844	1,064
Federal Republic of Germany	6,297	5,081
Other Governments	28,312	13,898
Canadian External Aid	21,079	15,520
Other Government Departments and Agencies	3,325	25,052
Total	755,248	744,083

Table 2-a.—Net Value of Canadian Government Defence Contracts

1964

Program	Canada	United States	Britain	France	Other Countries	Total
	\$000	\$000	\$000	\$000	\$000	\$000
Aircraft	95,930	48,592	11,514	5	9	156,050
Armament	14,603	4,079	2,285	139	128	21,234
Electronics	93,862	1,561	744	311	331	96,809
Ships	21,517	225	15,239	—	—	36,981
Tank-automotive	14,004	12,812	505	135	215	27,671
Fuels and lubricants	42,761	12	256	243	285	43,557
Clothing and equipage	10,715	327	26	2	1	11,071
Construction	30,573	—	—	1,195	1,090	32,858
Other	74,156	3,343	544	1,408	1,476	80,927
Total	398,121	70,951	31,114	3,437	3,535	507,158

1963

Program	Canada	United States	Britain	France	Other Countries	Total
	\$000	\$000	\$000	\$000	\$000	\$000
Aircraft	140,130	26,424	912	10	68	167,545
Armament	11,328	2,490	330	40 cr	13	14,119
Electronics	94,315	11,254	1,677	284	312	107,843
Ships	40,346	576	286	*	—	41,209
Tank-automotive	13,014	49	4,233	91	287	17,674
Fuels and lubricants	46,034	58	119	63	383	46,658
Clothing and equipage	10,660	46	40	6	2	10,754
Construction	31,247	—	—	1,558	424	33,229
Other	79,023	1,223	508	1,399	1,091	83,246
Total	466,097	42,121	8,107	3,371	2,581	522,277

*Less than \$500.

Table 2-b.—Expenditures Against Canadian Government Defence Contracts

1964

Program	Canada	United States	Britain	France	Other Countries	Total
	\$000	\$000	\$000	\$000	\$000	\$000
Aircraft	160,935	29,217	1,087	5	10	191,255
Armament	9,657	5,295	786	2,106	128	17,972
Electronics	102,759	9,095	519	311	403	113,086
Ships	35,574	409	197	—	—	36,179
Tank-automotive	12,558	11,363	1,281	135	213	25,550
Fuels and lubricants	25,167	11	122	243	272	25,815
Clothing and equipage	10,188	354	33	2	1	10,578
Construction	33,250	—	—	1,312	589	35,152
Other	73,397	1,932	488	1,408	1,450	78,674
Total	463,485	57,675	4,512	5,522	3,066	534,260

1963

Program	Canada	United States	Britain	France	Other Countries	Total
	\$000	\$000	\$000	\$000	\$000	\$000
Aircraft	159,797	13,070	1,823	10	72	174,772
Armament	14,905	2,498	2,171	4,552	13	24,139
Electronics	91,201	10,780	1,035	284	263	103,564
Ships	51,826	496	378	*	53	52,753
Tank-automotive	9,550	22	851	91	287	10,802
Fuels and lubricants	28,593	12	97	63	386	29,151
Clothing and equipage	11,980	3	65	6	2	12,056
Construction	30,880	—	—	1,319	311	32,510
Other	79,535	2,164	862	1,400	1,072	85,033
Total	478,267	29,046	7,283	7,725	2,458	524,780

*Less than \$500.

Table 3-a.—Net Value of Foreign Government Prime Contracts Placed in Canada

1964

Program	United States	Britain	West Germany	Other Countries	Total
	\$000	\$000	\$000	\$000	\$000
Aircraft	37,103	*	1,812	6,023	44,938
Armament	3,517	617	—	5,664	9,798
Electronics	32,199	901	1,928	233	35,261
Fuels and lubricants	152	—	—	—	152
Construction	973	—	—	77	1,050
Other	10,612	500	67	38	11,217
Total	84,557	2,018	3,807	12,035	102,417

1963

Program	United States	Britain	West Germany	Other Countries	Total
	\$000	\$000	\$000	\$000	\$000
Aircraft	46,706	—	1,394	29,089	77,189
Armament	5,033	766	3	582	6,384
Electronics	33,614	129	1,296	4,056	39,095
Fuels and lubricants	3,327	—	—	—	3,327
Construction	1,151	—	—	—	1,151
Other	7,037	476	*	512	8,026
Total	96,868	1,372	2,693	34,239	135,172

* Less than \$500.

**Table 3-b.—Expenditures Against Foreign Government Prime Contracts
Placed in Canada**

1964

Program	United States	Britain	West Germany	Other Countries	Total
	\$000	\$000	\$000	\$000	\$000
Aircraft	86,728	—	2,431	10,173	99,332
Armament	5,563	481	—	1,419	7,463
Electronics	36,857	200	2,650	1,973	41,680
Fuels and lubricants	226	—	—	—	226
Construction	1,002	—	—	—	1,002
Other	8,344	383	—	333	9,059
Total	138,719	1,064	5,081	13,898	158,762

1963

Program	United States	Britain	West Germany	Other Countries	Total
	\$000	\$000	\$000	\$000	\$000
Aircraft	95,157	*	228	21,905	117,290
Armament	5,572	564	3	593	6,732
Electronics	42,971	754	954	2,669	47,348
Fuels and lubricants	3,702	—	—	—	3,702
Construction	2,050	—	—	—	2,050
Other	3,384	525	5,112	3,146	12,167
Total	152,835	1,844	6,297	28,312	189,289

* Less than \$500.

Table 4-a.—Net Value of Contracts to Assist Canadian Defence Industry

Category of Assistance	1963	1964
	\$000	\$000
Care, maintenance and custody of Crown owned standby defence assets	164	120
Capital assistance	150	104
Establishment of competitive production capacity through absorbing certain preproduction and tooling costs	1,753	44 cr
Establishment of qualified sources for the production of component parts and materials	474	494
To sustain research and development capability in Canadian industry in order to assist the Canada-United States development and production sharing program	8,789	8,891†
Total	11,330	9,565

Table 4-b.—Expenditures Against Contracts to Assist Canadian Defence Industry

Category of Assistance	1963	1964
	\$000	\$000
Care, maintenance and custody of Crown owned standby defence assets	583	738
Capital assistance	119	127
Establishment of competitive production capacity through absorbing certain preproduction and tooling costs	1,890	283
Establishment of qualified sources for the production of component parts and materials	485	406
To sustain research and development capability in Canadian industry in order to assist the Canada-United States development and production sharing program	13,699	8,935†
Total	16,776	10,489

† The 1964 figures of \$8,891,000 and \$8,935,000 are for the January to March 31, 1964 period only. Vote 5 was transferred to Department of Industry April 1, 1964. The net value of contracts placed in the 1964 calendar year totalled \$35,133,000 while expenditures totalled \$20,084,000.

Appendix G

OTTAWA, March 29, 1965.

The Honourable C. M. Drury,
Minister of Industry,
Ottawa.

SIR,

I have examined the accounts and financial statements of the Department of Defence Production for the year ended March 31, 1964.

The Department's revolving fund, established under section 16 of the Defence Production Act, contained an accumulated surplus of \$1,255,779 at March 31, 1964. Section 58(5) of the Financial Administration Act provides that when a revolving fund ends the year with a surplus, such surplus shall be transferred from the revolving fund as revenue. In our opinion this surplus should have been transferred in accordance therewith.

In accordance with established governmental practice, the Crown-owned capital assets for which the Department is accountable are carried on the balance sheet at cost, without showing any deduction with respect to depreciation.

I now report that, in my opinion, subject to the foregoing:

- (a) proper books of account have been kept by the Department;
- (b) the financial statements of the Department
 - (i) were prepared on a basis consistent with that of the preceding year and are in agreement with the books of account,
 - (ii) in the case of the balance sheet, give a true and fair view of the state of the Department's affairs as at the end of the financial year, and
 - (iii) in the cases of the statement of expenditure, statement of revenue and the summary of transactions in surplus arising from trading operations, give a true and fair view of the operations of the Department for the financial year; and
- (c) the transactions of the Department that have come under my notice have been within the powers of the Department under the Defence Production Act and any other Act applicable to the Department.

Yours faithfully,

GEO. LONG
for Auditor General.

Balance Sheet as at March 31, 1964 (with comparative figures as at March 31, 1963)

GENERAL ACCOUNT

ASSETS		LIABILITIES AND GOVERNMENT EQUITY			
	1964	1963		1964	1963
Cash			Accounts payable	\$ 249,194	\$ 919,260
Accounts receivable— Purchasers of Crown plants and equipment	5,934,497	8,302,746	Sundry liabilities	270,761	578,270
Other	200,815	59,478	Equity of Government of Canada, Exhibit II	207,352,805	221,542,131
	6,135,312				
Advances— Crown agencies	13,000,000	17,000,000			
Other	15,774	13,607			
	13,015,774				
Investments, at cost— Polymer Corporation Limited, capital stock	30,000,000	30,000,000			
Township of Toronto, 3% debentures 1964-71	218,193	242,015			
Defence Construction (1951) Limited, capital stock ..	30	30			
Canadian Arsenals Limited, capital stock	30	30			
	30,218,253				
Crown-owned lands, buildings, machinery and equipment, at cost, including rehabilitation and installation costs					
With contractors	48,728,188	52,327,273			
In warehouse	4,697,107	5,296,368			
	53,425,295				

Crown-owned plants, at cost		
Canadian Arsenals Limited	95,216,852	99,611,024
Other	9,582,312	9,601,063
	<u>104,799,164</u>	
	<u>\$207,872,760</u>	<u>\$223,039,661</u>

In addition to the assets listed above, the Department has recorded in its books, expenditure in the amount of \$188,661,154 for production tooling, dies and jigs, title to which is vested in the Crown.

REVOLVING FUND

Government of Canada bonds	\$ 875,000	\$ 475,000
Accounts receivable	7,560,026	9,276,584
Progress payments and advances to suppliers	73,512,059	45,067,246
Working capital advances	1,479,000	2,250,000
Inventories of strategic materials, etc., at cost	9,061,616	8,981,563
Contractor's security deposits		\$ 875,000
Accounts payable		2,035,312
Progress payments from customers		59,813,352
Equity of Government of Canada— Revolving Fund, as provided by Defence Production Act, Sec- tion 16 (authorized \$100,000- 000), net expenditure		27,791,418
Inventory taken over by Depart- ment at inception		716,840
Surplus arising from trading operations, Exhibit V		1,255,779
	<u>29,764,037</u>	
	<u>\$92,487,701</u>	<u>\$66,050,393</u>

Approved on behalf of the Department.

G. W. HUNTER
Deputy Minister.

G. F. WEVILL
Comptroller.

I have examined the above Balance Sheet and the related statements and have reported thereon under date of March 29, 1965, to the Minister of Industry.

GEO. LONG
for Auditor General.

Summary of transactions in Equity of Government of Canada Account

for the year ended March 31, 1964

Balance at April 1, 1963	\$ 221,542,131	
<i>Additions:</i>		
Transfer of assets from other departments and Crown agencies	3,433,543	
Assets acquired from appropriations	183,745	
Decrease in accounts payable	670,066	225,829,485
<hr/>		
<i>Reductions:</i>		
Transfer of surplus assets to Crown Assets Disposal Corporation	5,761,177	
Decrease in fixed assets in custody of Canadian Arsenals Limited	4,394,173	
Decrease in working capital advance to the Canadian Commercial Corporation	4,000,000	
Receipts from sales, etc., Exhibit IV	2,359,486	
Transfer of assets to other departments and Crown agencies	1,295,270	
Assets written off due to completion of contracts, dismantling, etc.	663,884	
Sundry	2,690	18,476,680
<hr/>		
Balance at March 31, 1964		<u>\$ 207,352,805</u>

Statement of Expenditure for the year ended March 31, 1964

(with comparative figures for the year ended March 31, 1963)

	1964	1963
Vote I, Departmental administration		
Salaries	\$ 9,554,256	\$ 9,145,053
Living allowances	233,916	209,169
Travelling and removal expenses	313,892	288,831
Office stationery, supplies and equipment	337,676	243,244
Telephones and telegrams	230,971	176,191
Professional and special services	140,015	113,164
Postage	51,328	57,392
Freight, expenses and cartage	15,823	12,122
Rental of office accommodation	2,477	3,343
Publication of departmental reports and other material	21,014	1,186
Sundries	22,565	17,011
	<hr/>	<hr/>
	\$10,923,933	\$10,266,706
 Vote 5, Care, maintenance and custody of standby defence plants, buildings, machine tools and production tooling	 770,094	 846,603
 Vote 10, Capital assistance		
Capital account		
Equipment	22,677	113,341
Accountable advances to contractors	156,457	63,597
Establishment of production capacity .....	.....	52,720
	<hr/>	
	179,134	
Income account		
Establishment of production capacity	928,025	1,335,853
 Vote 15, Grants to municipalities in lieu of taxes	 187,025	 130,012
 Vote 20, Establishment of qualified sources for production of component parts and materials		
Capital account	2,000	1,667
Income account	485,342	243,539
	<hr/>	
	487,342	

	1964	1963
Vote 25, Sustainment of technological capability in Canadian industry	18,392,664	8,537,898
Vote 30, Defence Construction (1951) Limited Administration	2,509,825	3,221,504
Canadian Arsenals Limited—		
Vote 35, Administration and operation	4,257,976	4,200,573
Vote 40, Construction and improvements		7,464
Vote 40, Equipment	268,330	375,296
Statutory—Minister of Defence Production		
Salary	4,765	15,000
Motor car allowance	629	2,000
	<hr/>	
	5,394	
Statutory—Refund of prior year's rental revenue	36,416	
	<hr/>	<hr/>
Total expenditure	\$38,946,158	\$29,413,773
	<hr/>	<hr/>

Exhibit IV**Statement of Revenue for the year ended
March 31, 1964****(with comparative figures for the year ended March 31, 1963)**

	1964	1963
Income Account—		
Sales of surplus Crown assets	\$10,413,052	\$ 8,543,519
Return on investments	4,095,794	3,652,107
Rentals of buildings and equipment	153,955	182,575
Refunds of previous years' expenditure	11,588	108,652
Miscellaneous	3,918	4,649
	<hr/>	<hr/>
	\$14,678,307	\$12,491,502
	<hr/>	<hr/>
Capital Account—		
Sales of plant and equipment by the Department	2,316,442	2,318,771
Repayment of debentures	23,822	23,129
Recoveries of advances and accounts receivable	19,222	9,431
	<hr/>	<hr/>
Total per Exhibit II	2,359,486	2,351,331
	<hr/>	<hr/>
	\$17,037,793	\$14,842,833
	<hr/>	<hr/>

Summary of transactions in surplus arising from trading operations (Revolving Fund) for the year ended March 31, 1964

(with comparative figures for the year ended March 31, 1963)

	1964	1963
Balance at April 1	\$ 881,994	\$ 290,271
<i>Additions:</i>		
Sales, less cost of materials sold—		
Aircraft and components, sales	\$31,471,861	7,710,679
Aircraft and components, cost of sales	31,471,861	7,710,679
	<hr/>	<hr/>
Research and development, sales	4,002,149	1,943,230
Research and development, cost of sales	4,002,149	1,943,230
	<hr/>	<hr/>
Munitions and components, sales	2,633,914	(112,769)
Munitions and components, cost of sales	2,633,914	(112,769)
	<hr/>	<hr/>
Sonobuoys, sales	1,161,574	748,664
Sonobuoys, cost of sales	1,096,875	703,125
	<hr/>	<hr/>
Surplus transferred to accounts payable re- serve for price adjustments	64,699	45,539
	<hr/>	<hr/>
Shipbuilding components, sales	210,419	63,944
Shipbuilding components, cost of sales	210,419	63,944
	<hr/>	<hr/>
Strategic materials, sales	188,296	4,873,877
Strategic materials, cost of sales	175,240	4,470,458
	<hr/>	<hr/>
	13,056	403,419
	<hr/>	<hr/>
Interest received on sales of aircraft, net	365,471	194,423
	<hr/>	<hr/>
	1,260,521	888,113
<i>Reductions:</i>		
Warehousing and other expenses—strategic ma- terials and (in 1962-63) cloth	6,171	7,874
Less: proceeds of sale of warehousing equipment	1,429	1,755
	<hr/>	<hr/>
	4,742	6,119
	<hr/>	<hr/>
Balance at March 31	\$ 1,255,779	\$ 881,994
	<hr/>	<hr/>

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1965 ANNUAL REPORT

DEPARTMENT OF DEFENCE PRODUCTION • CANADA



2011
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FIFTEENTH REPORT

of the

DEPARTMENT

of

DEFENCE

PRODUCTION

1965



Hon. C. M. DRURY, P.C., C.B.E., D.S.O., Q.C., M.P., *Minister*

G. W. HUNTER, *Deputy Minister*

ROGER DUHAMEL, F.R.S.C.
Queen's Printer and Controller of Stationery
Ottawa, 1966
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*To His Excellency General The Right Honourable Georges P. Vanier,
DSO, MC, CD, Governor-General and Commander-in-Chief of
Canada.*

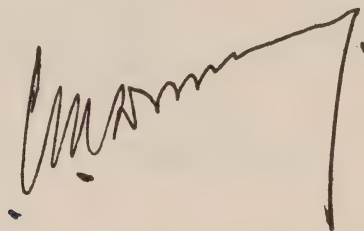
MARCH 31, 1966

MAY IT PLEASE YOUR EXCELLENCY:

I have the honour to submit to Your Excellency the Report of the Department of Defence Production for the calendar year 1965.

A summary of the operations and services rendered by this Department, under their respective headings, is laid before Your Excellency.

Respectfully submitted,

A handwritten signature in dark ink, consisting of a series of loops and a long, sweeping horizontal stroke that ends in a vertical line.

Minister of Defence Production.

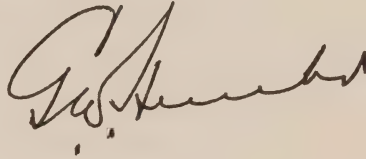
MARCH 31, 1966

The Honourable C. M. Drury, PC, CBE, DSO, QC, MP,
Minister of Defence Production,
Ottawa, Ontario.

DEAR SIR:

I have the honour to submit the Report of the Department of Defence Production, which covers the operations and services rendered during the calendar year 1965.

Yours faithfully,

A handwritten signature in dark ink, appearing to be 'G. Sturges', written in a cursive style.

Deputy Minister.

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Responsibilities and Organization

The Department of Defence Production was established on April 1, 1951, under the provisions of the Defence Production Act. It has exclusive authority for the procurement of the goods and services required by the Department of National Defence. In addition the Department has the responsibility for ensuring that necessary production capacity and materials are available in Canada to support the defence production program.

In support of the above two primary responsibilities and because defence procurement has an important impact on Canada's economy and international balance of payments, the Department has the responsibility for undertaking measures to encourage the development and production in Canada of defence equipment. Such measures for which the Department is responsible include defence equipment export activities, the establishment of arrangements with the United States and other friendly countries for co-operative efforts in defence industrial research, development and production, and managing the Canadian participation in the cooperative endeavours of the NATO Armaments Committee. As in previous years the Canada-United States Defence Production Sharing Program has been the most significant of such activities.

The Department provides the management and staff for the Canadian Commercial Corporation, which has the principal function of acting, on behalf of the Canadian government, as the contracting agency for foreign countries wishing to purchase defence, or other supplies and services, from Canada, on a government-to-government basis.

On September 4, 1963 the Government gave to the Department the responsibility for implementing certain recommendations of the Royal Commission on Government Organization relating to the formation of a central purchasing and supply agency. In essence this required that the existing structure of the Department was to be gradually reshaped in order to accept the function of procurement on behalf of all civilian departments and agencies other than commercially oriented Crown Corporations, and the civilian supply function.

To meet this responsibility there have been established within the Department a Canadian Government Purchasing Service, a Canadian Government Supply Service and a Canadian Government Repair Service, all of which are now functioning, and which together are being developed to form a future Department of Supply.

Canadian Government Purchasing Service

The Canadian Government Purchasing Service presently consists of 10 operational branches, the International Programs Branch, and the Canadian Commercial Corporation.

The operational branches are:

- Aircraft
- Apparel and Textiles
- Chemicals
- Electrical and Electronics
- Food Products
- Machinery
- Materials
- Mechanical Transport
- Shipbuilding and Heavy Equipment
- Wood Products

A complete outline of the activities of each of the operational branches and the International Programs Branch is given later in this report.

Canadian Government Supply Service

The Canadian Government Supply Service now consists of six headquarters branches, a Regional Supply Centre being operated as a pilot operation in Ottawa, a system of regional purchasing offices in Canada, the United States and Europe, and lastly, the Crown Assets Disposal Corporation.

The six headquarters branches are:

- Regional Purchasing
- Warehousing and Distribution
- Specifications and Standards
- Traffic Management
- Cataloguing
- Quality Assurance

An outline of the activities of the Canadian Government Supply Service during 1965 is contained later in this report.

Canadian Government Repair Service

The Canadian Government Repair Service was established in 1965 to provide maintenance, repair and overhaul services and technical advice to federal government departments and agencies for all non-military machines, equipment and other products located in Canada.

Advisory and Service Functions

As a result of the integration of the civilian purchasing and supply functions, and in order to establish more effective advisory and service functions, a number of organizational changes were instituted during 1965.

A Contracts Approval Board, chaired by an Assistant Deputy Minister, has been established as a result of an increase in authority given to the Department for entry into contracts for civilian supplies and services.

The Financial Adviser's Branch has been renamed the Contracts Branch and has retained most of its previous responsibilities with the exception of those relating to the establishment of Departmental contract policy. A new Contract Policy

Group has been established to act in an advisory capacity with respect to the development and formulation of policies and procedures applicable to the Department's defence and civilian procurement activities.

Legal advice and services to the Department will now be provided by a Legal Adviser and staff reporting to the Deputy Minister, instead of by a Legal Branch as was previously the case.

In summary, the service and advisory functions are now performed by the Contracts Approval Board, the Contract Policy Group, the Legal Adviser and the following branches:

- Comptroller
- Contracts
- General Services
- Management Control
- Management Services
- Personnel

An outline of their 1965 activities is included later in this report.

Emergency Planning

The Emergency Supply Planning Branch is responsible for planning a War Supplies Agency which, in the event of a nuclear war would exercise control over the production, distribution and pricing of civil and military supplies.

Crown Companies

The following Crown Companies and Agencies report to Parliament through the Minister of Defence Production:

- Canadian Arsenals Limited
- Crown Assets Disposal Corporation
- Polymer Corporation
- Canadian Commercial Corporation

Each of these organizations accounts for its activities through its own annual report.

Canadian Government Printing Bureau

In 1964, the Canadian Government Printing Bureau was formed to be responsible for the printing functions of the former Department of Public Printing and Stationery. The responsibility for publications rests with the Queen's Printer. The General Manager of the Printing Bureau reports to the Deputy Minister of Defence Production and the Bureau issues its own annual report.

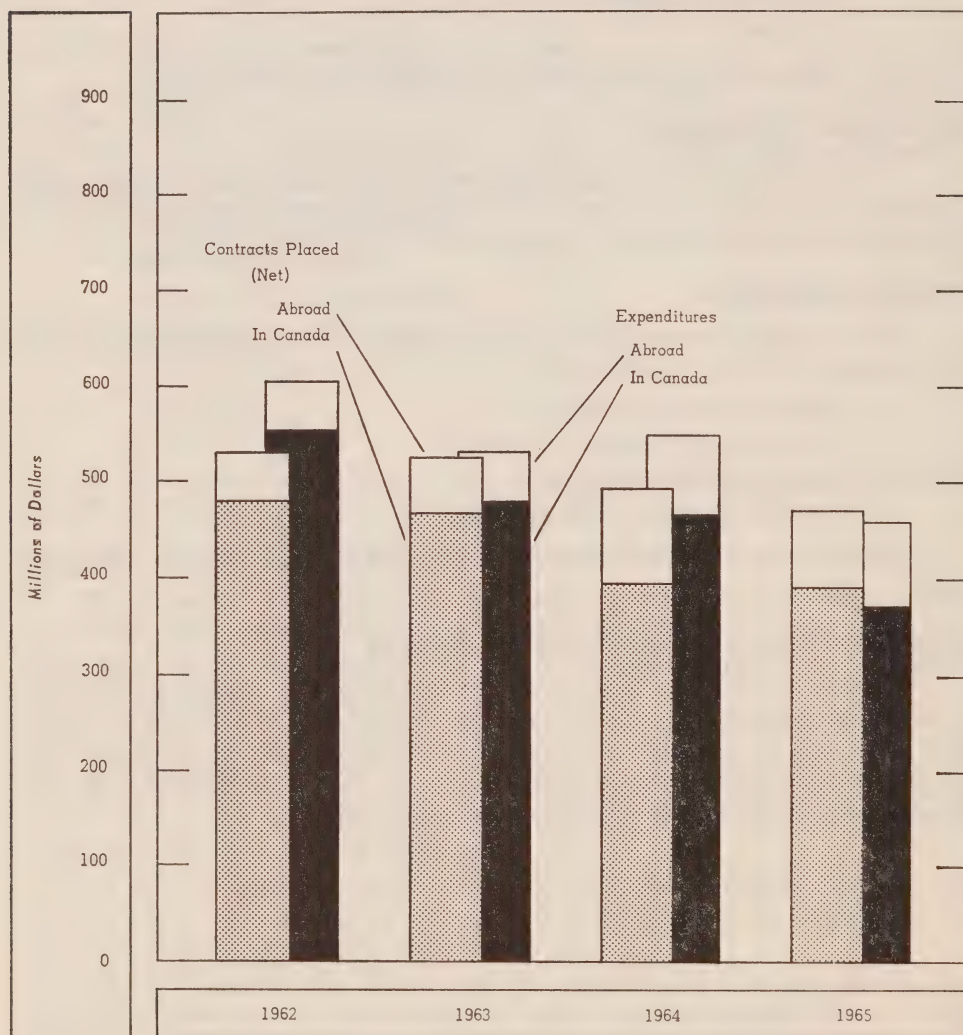
Canadian Government Purchasing Service

Defence and other Contracting, 1965

Contracts having a total net value of \$713,400,000 were issued in 1965, an increase of 8.4 per cent from the total of \$658,400,000 in the previous year.

The largest group of contracts, having a net value of \$473,500,000 was issued on behalf of the Department of National Defence. This is 4.8 per cent less than the value of such Canadian Government defence contracts issued in 1964 and represents 66.3 per cent of the year's total contracting by the Department compared to 75.5 per cent in 1964.

Contracts Placed on Behalf of the Department of National Defence and Related Expenditures



Foreign government defence prime contracts placed in Canada through Canadian Government agencies totalled \$162,200,000 almost \$50,000,000 greater than the value for 1964. Contracts valued at \$154,000,000 or 95.2 per cent, were placed for the United States Government.

Contracts issued against this Department's votes to assist Canadian defence industry had a net value of \$1,500,000 compared to the 1964 figure of \$700,000. These figures do not include the value of contracts issued to sustain Canadian industrial technological capability since control of this latter vote was transferred to the Department of Industry effective April 1, 1964.

Contracts let for Canadian external aid programs rose by 50 per cent from \$13,100,000 in 1964 to \$19,600,000 in 1965.

The value of contracts issued in behalf of other Canadian government departments and agencies (\$56,600,000) accounted for eight per cent of the Department's total contracting during the year. This compares with a total value of \$26,200,000 in 1964, which represented four per cent of the total procurement initiated by this Department.

These figures, and those contained in appendix F of this Report, relate only to prime contracts awarded by the Department of Defence Production and its associated Crown companies, Canadian Commercial Corporation and, up to March 31, 1965, for Defence Construction (1951) Limited. They do not include prime contracts placed directly with Canadian contractors by foreign governments and subcontracts placed in Canada by United States and other foreign defence contractors.

Further reference to these direct prime contracts and subcontracts, which are reported to the Department by Canadian companies, is contained in the section of this report covering the defence production sharing program and overseas defence exports.

Integration of Civilian Purchasing

With regard to the integration of the civilian purchase function, significant progress has been made since 1964, when the purchasing functions of the Department of Public Printing and Stationery were integrated with this Department. During 1965, the Department of Public Works' purchasing responsibilities in regard to furniture, janitorial supplies and maintenance, repair and operating supplies in Ottawa, Toronto and Montreal, were transferred to the Department of Defence Production. The personnel associated with these functions were also transferred to, and integrated into the Department. A similar partial transfer of purchasing functions has been entered into with the Department of Transport. However, in this case integration of staff will not occur until 1966.

In accordance with the over-all plan and schedule for the orderly transfer of the purchasing functions of other government departments and agencies during the next few years, the purchasing functions hitherto undertaken by the Department of Citizenship and Immigration and those undertaken by the Department of Northern Affairs and National Resources for units in the North West Territories, were transferred to DDP. Negotiations are under way to transfer the additional

purchasing responsibilities from Northern Affairs and National Resources. These negotiations will lead to the complete transfer, during 1966, of all the purchasing functions of that department.

Similar consultations are now being held with the Departments of Veterans Affairs and National Health and Welfare, and it is expected that the takeover of those purchasing responsibilities will be completed in early 1966.

Aircraft Branch

In 1965 the Aircraft Branch issued contracts totalling \$225,500,000 compared to \$183,300,000 in 1964. Of the 1965 amount, \$125,000,000 was for the Canadian Forces for aircraft, aircraft equipment and related services. Exports of defence materials to foreign governments accounted for contracts valued at \$99,600,000. Contracts for capital assistance, defence industry modernization and qualification of sources amounted to \$900,000.

Repair and overhaul contracts placed and administered by the Branch on behalf of the Canadian Armed Forces totalled 322 valued at \$67,300,000. These were distributed among 47 Canadian, six United States and five United Kingdom facilities. In addition, nine contracts valued at \$1,000,000 issued to five Canadian facilities were negotiated and administered on behalf of the Canadian Commercial Corporation.

Following selection of the Northrop F-5 aircraft as the new tactical fighter for the RCAF, negotiations were opened with Northrop for reconfiguration and licence agreements to allow manufacture in Canada of CF-5A tactical fighter and CF-5D fighter trainer aircraft. Canadair was selected to manufacture this aircraft in Canada and production is scheduled to begin in 1966.

Production of the CT-114 tutor primary trainer continued, 74 aircraft being completed during the year. The last of the 190 aircraft on order is to be delivered by August 1966. Production of F-104G aircraft from the Canada-United States Mutual Aid Program was completed late in the year. Delivery of spare parts continues.

Assembly of CHSS-2 helicopters for the Royal Canadian Navy progressed satisfactorily. Procurement of a further five helicopters ordered for the Canadian Army was completed during the year.

Manufacture of J79-11A turbo-jet engines for the MAP F-104G program was completed in November. Delivery of the J85-CAN-40 engines ordered for use in the CT-114 tutor aircraft was completed in September. Deliveries of the T58-GE-8B turbo-shaft engine for the Canadian Armed Forces Helicopter Program amounted to 31 engines during the year and were ahead of schedule.

Arrangements are being made for a licence and technical assistance agreement for production in Canada of J85-15 gas turbine engines required for the CF-116 (CF-5) Tactical Fighter Aircraft Program. It is anticipated that a minimum of 250 engines will be required. Arrangements were made with the United States government to complete development and qualification of the engine, using that government's facilities.

A further 26 Caribou aircraft were produced during the year for foreign customers. Nine were delivered to the U.S. Army, four to Zambia, one to Uganda,

seven to the Royal Australian Air Force, completing the order for 25, one to Ansett Airways (Australia), four to Kenya, and one to Air Asia, Taiwan.

An order was placed for 15 CF-115 Buffalo aircraft for the Royal Canadian Air Force, with deliveries scheduled during 1967 and 1968.

Further progress was made with the development of the FHE-400 hydrofoil craft for the Royal Canadian Navy. Initial trials are expected to start late in the summer of 1966.

Apparel and Textiles Branch

As the successor to the former Clothing and Textiles Branch, the Apparel and Textiles Branch assumed during 1965 the responsibility for purchasing on behalf of the Department of National Defence items of outer and inner clothing, fabrics, canvas goods, bedding, flags, towels and related items.

In addition it assumed in 1965 increasing responsibility for civil department requirements for goods and services, as a result of the formation of the Canadian Government Supply Service.

During 1965, 1,200 contracts totalling \$18,500,000 were let, an increase of approximately \$5,000,000 over 1964.

Contracts for major items of sized clothing and footwear were let on an annual basis, with quarterly deliveries made in accordance with the quarterly quantities and sizes required by the Department of National Defence.

A contract valued at \$1,387,000 was let during 1965 for the supply of 40,000 sets of the newly developed load carrying equipment designed for use in conjunction with the new combat uniform. This equipment replaces the conventional web equipment and lightens considerably the carrying load. The reduction in weight was brought about by the use of a lightweight waterproof fabric; use of velcro closures in lieu of the old style metal buckles and hooks and nylon moulded hardware instead of metal. Production will extend over two years.

In co-operation with the Canadian Centennial Commission, the Apparel and Textiles Branch is engaged in the design and procurement of uniforms to be used in the coast-to-coast military tattoo which will be staged in conjunction with the Canadian Centennial in 1967.

Chemicals Branch

The Chemicals Branch was responsible for the procurement of petroleum products, heating fuels, pharmaceuticals, dental supplies, photographic stores, cleaning materials, paints and related coatings, rubber and plastic products, research and development services and chemical warfare items.

During 1965, 4,995 contractual documents having a value of \$56,200,000 were issued. This represents an increase of \$12,000,000 over the 1964 expenditure for the same period. Civilian procurement related to the Canadian Government Supply Service accounted for approximately 11 per cent of the totals of contractual documents issued.

Participation in the Canada-United States production and development sharing programs included the promotion of protective equipment and chemicals required by NATO countries. Contracts were issued for various petroleum, rubber and plastic products.

An agreement was entered into on behalf of the Department of Public Works for the leasing of Crown-owned facilities at Fort Churchill, Manitoba, for the storage of petroleum products. Purchases of petroleum products for a one-year operation totalled \$748,000.

To effect economical supply and control, a national credit card system for the purchase of gasoline, oil, lubricating and minor road repairs through service stations is being implemented. This system will be used by 25 departments and agencies operating approximately 7,000 vehicles. It is estimated that resultant savings could exceed \$150,000 annually.

In 1965 External Aid procurement for India, Pakistan, Ghana and British West Indies involved such items as sulphur, ammonium sulphate, fire hose, paint and related commodities at an estimated cost of \$3,780,000.

Electrical and Electronics Branch

During 1965 contracts valued at \$102,400,000 were placed by the Electrical and Electronics Branch to meet Canadian defence requirements. This is an increase of approximately \$6,300,000 over 1964.

Contracts were also placed on behalf of other Canadian government departments to the value of approximately \$15,800,000, including External Aid at \$5,100,000. In addition, contracts placed by the Branch for the defence requirements of other governments during 1964 had a net value of \$37,300,000.

During the past year a major sonar development program was continued which incorporates the use of advanced technology aimed at improved reliability, as well as weight and cost reduction.

A contract has been awarded for the provision of a plan for the consolidation, improvement and development of all national defence communications requirements. Development and production of electronic counter measures equipment for Canadian and U.S. armed forces proceeded and contracts were placed for radiation detection equipment for the Emergency Measures Organization and also for the U.S. armed forces.

Production of vehicle navigation aids continued with evaluation quantities sold to several NATO allies. Development has continued on the fighting equipment for the RCN Hydrofoil and procurement of the electronic equipment for the initial installation is under way. Contractual action has been initiated for an advanced information system for other naval vessels. The Alouette/ISIS Program continued on schedule. During November 1965, Alouette II was successfully launched and is functioning as expected.

The Branch undertook procurement for a major program to update navigation equipment on transport, helicopter, and fixed wing Anti-Submarine Warfare (ASW) aircraft carried out by the Department of National Defence. In addition, the ASW aircraft are being fitted with new submarine detection equipment. Contracts for the development and production of advanced airborne navigation equipment and crash position indicators were awarded to Canadian industry on behalf of the U.S. Government. Contracts for Canadian manufactured Doppler navigation equipment for allied governments continue to be awarded.

As a result of the selection by the Department of National Defence of the new Tactical Aircraft CF-5, procurement planning is proceeding for the required avionics equipment.

Agreements were made by the Branch with the U.S. Government whereby U.S. cross-border leased communication circuits and associated terminal equipment requirements would be contracted for by Canada. This will allow both the U.S. and Canadian governments to take advantage of substantial savings through the volume discounts offered by the telephone companies.

Rearrangement of the Air Defence Command communication system was begun in 1965 and contracts have been placed with the telephone industry for a new switching environment which will provide a flexible communication system across Canada.

Food Products Branch

During the year the Food Products Branch issued contractual documents involving an expenditure of \$7,500,000.

The principal role of the Branch is the procurement of non-perishable food items and contractual arrangements of food services.

Under the auspices of the World Food Program, flour, wheat, oats, dried fish, egg powder, milk powder, butter oil, processed cheese and butter were procured for the following countries, Ceylon, Ethiopia, British Guiana, Bolivia, Brazil, Costa Rica, Basutoland, Dominican Republic, Jordan, Jamaica, Formosa, Korea, Beirut, Syria, Viet Nam.

A continuing review is being carried out in conjunction with industry and other government departments in the field of specifications and new products with a view to incorporating the many technological and packaging changes which have been introduced.

It is expected that these studies will result in more efficient feeding and savings in expenditure.

Machinery Branch

The Branch is responsible for procurement and production sharing activities in the field of armament and related aerospace systems, weapons and ammunition. Procurement work also includes production machinery, office equipment and a wide range of metal products for the Department of National Defence, External Aid projects, and other departments using the Canadian Government Supply Service.

During the year, contracting for armament equipment and general supplies for Canadian defence requirements by the Branch amounted to \$24,100,000. Contracts for civilian procurement related to the Canadian Government Supply Service amounted to \$5,500,000. Orders for a further \$17,400,000 were placed with Canadian firms by the Branch for U.S. armament requirements such as impact extrusions, plastic moulding, ferrous casting, quality machine parts, rocket grains, propellants and explosives, including a substantial contract for 2.75" rocket warhead castings. Canadian armament purchases from foreign countries amounted to \$14,800,000.

During the year, research and development projects were undertaken for the Canadian armed services and for possible sales to NATO allies. These include a launcher for a United States missile system, a light gas gun, the joint U.S.-Canada High Altitude Research Program, battlefield surveillance system, an aqua-jet propulsion system, and modifications to Canadian-built torpedoes to provide greatly increased efficiency in shallow water.

Several activities were consolidated in rocket development and production work, including production of jet assisted takeoff units, negotiating complete United States-Canada development of a meteorological rocket system and arranging for source approval of a new high impulse case propellant.

Project definition contracts have been let for a possible missile defence system for the Destroyer Helicopter Program. The Branch has also been evaluating the possibilities for Canadian production of new torpedoes and other systems of foreign design that are required for the Canadian Armed Forces.

In the weapons and ammunition field, the Norway-Canada joint production program of a light anti-weapon advanced on schedule. Negotiations are now being conducted for sales to other NATO countries. Major items of production included torpedoes, anti-submarine projectiles and devices, aircraft bombs, anti-tank and small arms ammunition, rocket launchers and pyrotechnic stores.

Purchases of various types of machinery were carried out for the External Aid Program to equip technical schools in Malaysia and Jamaica. A new procurement procedure on a tri-service basis for the purchase of machine tools is being established to decrease procurement time and expand competition.

Materials Branch

The Materials Branch was responsible for the procurement of ferrous, non-ferrous and industrial materials in primary, semi-fabricated and fabricated forms for the Department of National Defence, production sharing, External Aid projects and for civilian procurement related to the Canadian Government Supply Service.

It also had the responsibility for the government's residual strategic materials stockpile and for Canada's participation under the United States Government Defence Materials System for the assignment of priority ratings and material allocations.

During the year the Branch issued 1,763 contractual documents valued at \$4,656,000. Included are 156 contracts valued at \$1,638,000 covering the supply of copper tubing, brass bars, steel sheets and wire rope, placed on behalf of the United States government supply agencies.

External Aid procurement was undertaken for India, Pakistan, Ceylon, Ghana and Malaya, and involved such items as structural steel, reinforcing rod, steel pipe, asbestos pipe, glass and construction materials.

Mechanical Transport Branch

The Mechanical Transport Branch purchases commercial vehicular, construction, agricultural, warehousing and rail equipment, and also military tracked and wheeled combat vehicles. It also manages, on behalf of the Department of Industry,

development contracts for special pattern military equipment having an export market potential. The carrying out of these activities in 1965, involved the administration of some 2,000 contracts having a total value of approximately \$100,000,000.

This development program includes the Go-Tract over-snow vehicle, the Gemini ground effects vehicle, the Air Transportable Maintenance Shelter and the Dynatrac Military Carrier. The latter vehicle concept has been accepted by allied military forces to the extent that a production engineering award has been received from the U.S. Army. Several hundred vehicles have been requested by the Norwegian Army and the British Army has purchased two units for trial purposes.

Several new development sharing programs were initiated during the year, including a new Armoured Reconnaissance Scout Vehicle, financed equally by Canada, the United States and Britain.

Development and production agreements were established on behalf of the Centennial Commission for components and support of the Centennial Train and Centennial Truck Trailer Road Caravans. Assistance was also provided to the Canadian Corporation of the 1967 World Exhibition (Expo '67) in the contracting for public amusement rides. In 1965 work was begun on behalf of the Department of National Defence to provide transportation for that department's special centennial year presentation, The Military Tattoo.

In the commercial equipment field, purchases by the Branch for equipment parts and associated services came to about \$18,000,000.

Further steps were taken towards the centralized procurement of vehicles in 1965. The Branch assumed responsibility for the purchase of vehicles required by the RCMP and the Department of Citizenship and Immigration. Contracts for approximately 1,000 vehicles were placed on behalf on these and other civilian departments and agencies.

In addition, \$1,200,000 was spent in the procurement of items being supplied under various External Aid programs. Equipment such as bituminous distributor trucks and diesel locomotives were obtained for shipment to British Guiana, swamp tractors for West Pakistan, logging tractors for Uganda, road rollers for the Republic of Ghana, dump trucks for Tanzania, and trucks to be used in conducting a geological survey in Uganda.

Several commercial purchases were also made on behalf of the U.S. Government. These included the acquisition of Canadian tracked vehicles for use in the U.S. Antarctic program and the leasing of 33 vehicles required in connection with a meteorological study being carried out in Western Canada.

Military vehicle equipment requirements for the Department of National Defence necessitated the placing of \$16,000,000 worth of new contracts during 1965 and the negotiation of a further \$50,000,000 worth to be awarded in 1966.

Shipbuilding and Heavy Equipment Branch

In 1965 a new procurement policy for government shipbuilding was developed. This policy, the basis of which is national competition for new construction, was announced by the Minister of Industry in July 1965.

The first of three Oberon Submarines to be acquired from the British Defence Ministry, the Ojibwa, was delivered on schedule in September 1965; the second vessel, the Onondaga, was launched in September for delivery in 1967; work on the third vessel was begun, with delivery scheduled for 1968.

The Pacific Laboratory Vessel was completed in March 1965. Tenders were called for a Naval Research Establishment vessel.

An approved requirement for two operational support ships was raised. Specifications were issued on a national basis in 1965 with tenders to be called in 1966.

A requirement for four DDH Destroyers with gas turbine propulsion systems was confirmed in 1965. It is the first time this type of propulsion has been introduced for combatant ships. The planning of the acquisition program for these vessels proceeded on schedule and it is anticipated that proposals will be invited in late 1966 or early 1967.

The conversion of ships of the St. Laurent Class proceeded in 1965; work was completed on HMCS Saguenay, HMCS Skeena, HMCS Margaree, and work on HMCS Fraser was begun.

Conversion of the Restigouche Class began with the start of work on HMCS Terra Nova. The work on the Terra Nova, the first of its class, is being performed in HMC Dockyard, Halifax. Planning proceeded for the follow ships of the Restigouche class, the conversion of which will be carried out by commercial shipyards.

Tenders were issued in 1965 for modernization and refit of the Aircraft Carrier Bonaventure, with work to begin in 1966. The repair and refit program of the fleet was continued in 1965 with approximately 76 contracts awarded to commercial yards. In 1965 tenders were invited and contracts placed for two Oceanographic Research vessels, with a third to follow.

Four External Aid projects are being administered as follows: Thaketa Bridge, Rangoon, Burma; Mutwal Fish Plant, Colombo, Ceylon; Francis Turbine for Power Station, Untru, India; Sewage Treatment Systems, Lahore, Pakistan.

A further External Aid project covering the Idikki Hydro Electric installation for India has been approved.

Production sharing activities increased during 1965 with direct and indirect contracts amounting to over \$10,000.00. The principal activity in this field covered torpedo tubes for installation in U.S. nuclear submarines, components for use in catapult gear and arresting assemblies for U.S. aircraft carriers, submarine models for underwater explosion research and miscellaneous ship components for the Royal Australian and Norwegian Navies and U.S. Coast Guard Services.

Wood Products Branch

In June 1965 the purchasing function, formerly performed by the Department of Public Works, was transferred to the Wood Products Branch. Later in the year the purchasing function previously performed by the Department of Citizenship and Immigration was transferred to the Department and responsibility for the purchase of most of their commodity requirements was assigned to the Branch.

To accommodate the additional purchasing load, the Branch was reorganized into two divisions: the Printing and Stationery Division, to assume Stationery, (taken over by this Branch in October 1964) and the Furniture and Wood Division, to look after the functions formerly performed by the Department of Public Works.

As a result of these changes, the Branch now purchases commodities in the following categories: stationery, paper, printing supplies, commercial printing, school and office furniture, lumber and miscellaneous wood products.

During 1965 there was a marked increase in the number of standing offer agreements issued by the Branch. This technique allows individual civilian and military departments to draw against these agreements as required, thus achieving flexibility and faster service.

During the year the Branch issued 8,721 contractual documents valued at \$17,419,000.

International Programs Branch

The International Programs Branch functions include management of the Canadian Commercial Corporation activities, co-ordination of the Department's interests in international co-operation in defence industrial research, development and production, the Canada-U.S. Defence Production Sharing Program, and overseas defence export activities. During the year, the management of External Aid supply activities was transferred to the Management Control Branch.

The Branch has an office in Washington and six field offices located in major cities of the United States to maintain liaison with U.S. defence agencies. Overseas, officers of the Branch are stationed as attaches at the Canadian Embassies in Paris, and at Bonn in the Federal Republic of Germany, and at the High Commissioner's Office in London, to assist Canadian industry to participate in European defence requirements. In addition, two officers serve on the Canadian Delegation to the North Atlantic Council in Paris.

Canadian Commercial Corporation

The International Programs Branch has general management responsibility for the Canadian Commercial Corporation, whose activities are now integrated with those of the Department. The Corporation has, however, retained its corporate identity under its president, who serves also as the Director, International Programs Branch.

During 1965 the total dollar value of business received by the Corporation from the United States' and other governments, international agencies, and departments of the Government of Canada amounted to \$194,700,000. This is an increase of \$68,400,000 over that received in 1964, and results from increased U.S. defence procurement and increased purchases on behalf of the External Aid Program.

Programs for Maintaining the Defence Industrial Base

Programs aimed at maintaining the defence industrial base in Canada include:

- a defence equipment development program in Canadian industry
- a defence industrial modernization program
- a strategic components sourcing program

The Defence Equipment Development Program

This program was established in 1959 to sustain the technology of the Canadian defence industry in the export field. The program supports the development of defence equipment to meet the military requirements of the U.S. and other allied governments on a cost-shared basis. From the inception of the program to the end of 1965, a total of 105 defence development projects have been initiated, resulting in a significant increase in the employment of skilled personnel in the Canadian defence industry.

Current projects include airborne and vehicular surveillance and navigation systems, short takeoff and landing (V/STOL) aircraft, gas turbine stationary and aircraft engines, submarine detection equipment, electronic hardware, off-road

vehicles, lightweight missile launchers, communications equipment, and upper-atmospheric research vehicles. In support of these projects during 1965, \$22,000,000 was spent out of the Department of Industry vote provided for this purpose.

An important adjunct to the development program continues to be the Defence Industrial Research Program managed by the Defence Research Board in conjunction with the Department of Defence Production.

The Defence Industrial Modernization Program

Established in 1964, the program provides assistance in upgrading production capability to meet the high standards of quality required in defence export markets. The program has built up rapidly and during 1965 the Department approved 32 projects with a value of \$3,770,000.

The Strategic Components Sourcing Program

This program ensures that wherever possible Department of National Defence requirements for component parts and materials are met in Canada. Expenditures in this program during 1965 amounted to \$383,000. However, as Canada increasingly standardizes, with her allies, components for defence equipment, the objectives of this program are now more closely related to those of the defence industrial modernization program. Consequently, a consolidation of these two programs is planned for 1966.

Canada-United States Defence Production Sharing

The Canada-United States Production Sharing Program aims at the optimum utilization of the North American defence industrial base. It is intended that reciprocal procurement of items of mutual defence interest will be maintained in rough balance at the highest practicable level.

In 1965, U.S. production sharing procurement in Canada reached a new high of \$259,500,000 in terms of contracts placed. Total U.S. production sharing procurement in Canada since the start of the program in 1959 reached \$1,174,200,000. Comparable figures for Canadian production sharing procurement in the United States were \$130,100,000 in 1965 and \$981,600,000 for the seven-year period. The cumulative seven-year cross-border balance stood at \$192,600,000 in favour of Canada at the end of 1965.

These statistics for defence production sharing activity between Canada and the United States are acquired on the basis of contracts placed for such items as applied research and development, pre-production, production, licence agreements and technical assistance. The program does not include "off-the-shelf" general procurement, construction, basic raw materials, fuels and lubricants, or service. Thus, it is not practical to compare figures measuring the Defence Production Sharing Program, which include subcontracts as well as prime contracts, with data in other sections of this report which relate only to the prime contracting and CCC procurement for which the Department is responsible.

Support of the two governments for the Production Sharing Program was strengthened through meetings of the senior committee of officials responsible for the program, as well as various working groups charged with specific areas of

interest. During the year, the United States Defence Supply Agency established a Defence Contract Administration Services office in Ottawa to assist in the administration of U.S. Department of Defense contracts in Canada.

Continuing close co-operation for defence production sharing purposes was maintained with other departments of the Canadian Government, particularly with the Departments of National Defence, External Affairs, Finance, Industry and Trade and Commerce. In collaboration with the Department of Trade and Commerce, DDP representatives attended several United States trade fairs having defence aspects, to publicize the Production Sharing Program to United States industry.

Day-to-day contact by the production branches of the Department with Canadian defence industries maintained and strengthened relationships, and briefings were given to defence industry officials on the opportunities and problems involved in selling in the United States defence market.

Defence Development Co-operation Programs

International defence development co-operation such as that involved in the Canada-United States Development Sharing Program is sponsored by the Department to stimulate defence equipment development in Canadian industry by enabling companies to undertake research and development on behalf of the United States or other allied armed forces.

Financing is carried out on a cost shared basis between the governments and industries concerned. Total new commitment from all sources in 1965 amounted to \$46,000,000, bringing the total since 1959 to \$190,000,000. It is significant that the level of financial commitment by the government has attracted comparable commitments on the part of Canadian industry and allied governments. Various equipments under development are attracting the interest and support of an increasing number of allied countries.

Overseas Defence Exports

The interdependence of allied countries and the necessity for close collaboration in equipment development and production are being increasingly recognized. During 1965, the Department further intensified its effort to establish co-operative arrangements with Canada's NATO partners and other friendly countries.

The Anglo-Canadian Committee on Co-operation in Defence Research, Development and Production held its fourth meeting in Ottawa in 1965. Arrangements have been made to examine present and future military requirements of the two countries to determine possibilities for joint development of military equipment.

The Franco-Canadian Committee on Co-operation in Defence Research, Development and Production was established in 1965. A review of present and future Canadian and French military requirements is proceeding to ascertain areas for active co-operation.

During the year, meetings were also held in the Federal Republic of Germany to further the understanding with that country regarding joint equipment programs. As a result, the Federal Republic joined Canada and Britain in the development of a Reconnaissance Drone, contributing \$10,000,000 to this project. The Federal Republic is also currently examining a number of Canadian developments for possible introduction into the West German armed forces.

Because of this increased emphasis on international co-operation, departmental officers have visited a number of other European countries, as well as Australia and New Zealand, to develop further opportunities for closer collaboration and to survey potential defence export markets. Defence procurement missions from Europe, Asia, Australia and New Zealand visited Canada during the year.

Canadian industry was further informed of opportunities for participating in the defence equipment programs of other countries through a briefing in Ottawa in June 1965, by departmental field officers, attended by over 100 Canadian industrialists. Also, publications illustrating the defence equipment capabilities available in Canada were widely distributed in overseas countries.

In terms of contracts placed by or on behalf of overseas defence agencies for military requirements, total overseas defence export business in 1965 amounted to about \$68,000,000, an increase of some \$8,000,000 over 1964. Eighty Canadian firms participated, exporting to 43 foreign countries (excluding the United States).

With a view to improved analysis of the trend of exports from the Canadian defence industrial base, statistics were compiled in 1965 to measure the volume of exports to overseas countries which contribute to the scientific capabilities of the Canadian defence industry, whether or not the end product is of an obvious military nature or the overseas customer is an identifiable defence agency. Dominion Bureau of Statistics export summaries serve as the major source of data. On this basis, overseas exports from Canadian defence industry in 1965 is estimated at \$155,000,000. This figure is based on shipments made rather than contracts placed.

NATO Research Development and Production

In 1965, as in the past, the department participated in many of the NATO Armaments Committee working groups. The objective is to stimulate co-operation in defence research, development and production (RDP) within NATO, with a view to the establishment of joint development and production programs. One of the co-operative projects, in which Canada is a participant, is the production of the M72 light anti-tank weapon. Demonstrations of this equipment to other NATO countries are planned to take place in Norway early in 1966.

During 1965, the NATO Secretary General established an exploratory group to study and report on methods by which NATO co-operation in research, development and production of common military requirements could be substantially improved. This department is actively co-operating with the Department of National Defence in the preparation of the report by the group which is expected to recommend changes in the present NATO mechanism for handling co-operative equipment programs.

NATO Infrastructure

The approved NATO common infrastructure program to date amounts to over \$3,500,000,000. Canada's commitments to this program exceed \$200,000,000. The Department is encouraging Canadian industry participation by the dissemination of bidding information as well as giving such guidance as may from time to time be requested by interested Canadian firms. Departmental officials stationed in certain NATO host country capitals work closely with commercial attachés and other embassy officials to facilitate participation by Canadian industry.

Canadian Government Supply Service

The initial phase in the organization of a Canadian Government Supply Service was completed in 1965. It entailed the establishment of a basic organization of six headquarters branches whose specialized technical staff will engage in research and policy formulation in cataloguing, specifications and standards, regional purchasing, warehousing and distribution, traffic management and quality assurance.

The headquarters branches will ensure that the Canadian Government Supply Service takes full advantage of the most up-to-date procedures, methods, techniques and equipment. This means an effective system of identification and classification of items, the preparation of specifications and the establishment of standards for the most commonly used items as well as the determination of the most economical purchasing methods.

The system must also embody the latest warehousing techniques, an efficient control of transportation costs and the assurance that the items that are purchased for the government departments are of acceptable quality.

In 1965, operations began at No. 1 Supply Centre, Capital Region, in Ottawa. At present, operations are limited to those items which were previously supplied through the Department of Public Printing and Stationery and the Department of Public Works.

It is intended to operate the No. 1 Supply Centre as a pilot operation in order to develop the inter-relationship that must exist between the headquarters branches and the Supply Centre.

Regional Purchasing Branch

The Regional Purchasing Branch has been formed around the existing district office purchasing organization which is made up of 14 offices across Canada, as well as offices in Great Britain, France, Germany and the United States. The 14 Regional Offices in Canada are at Victoria, Vancouver, Calgary, Edmonton, Regina, Winnipeg, Toronto, London, Ottawa, Montreal, Quebec, St. John, N.B., Halifax and St. John's, Nfld.

The branch is already providing a purchasing service to a number of civilian departments and agencies as well as continuing to service the armed forces. It has taken over purchasing for the Civil Defence College and has assumed some purchasing responsibilities for the Departments of Citizenship and Immigration, Public Works, Northern Affairs and National Resources and for the Canadian Corporation for the World Exhibition (Expo '67).

Warehousing and Distribution Branch

The Warehousing and Distribution Branch will determine the means by which the supply activities of civil departments and agencies, other than commercially oriented Crown corporations, can gradually be integrated into the Canadian Government Supply Service, in order that centralization of materials management can be effected. The Branch will establish operating policies through which the CGSS Regional Supply Centres will provide warehousing and distribution services to the civil departments and agencies.

Cataloguing Branch

The Cataloguing Branch is being organized to provide the necessary support service for materiel management in all government departments other than military. The Branch program includes the development of uniform supply language with the objective of a single name, classification and stock number for each unique item managed under the NATO cataloguing system, which is also used by our armed services.

Specifications and Standards Branch

On April 1, 1965, the staff serving as the secretariat of the Canadian Government Specifications Board was transferred from the National Research Council to the Department of Defence Production. The Specifications and Standards Branch of the Canadian Government Supply Service is being formed around this group with the incorporation of the forms co-ordinating and specifications personnel previously associated with Public Printing and Stationery.

Traffic Management Branch

The Traffic Management Branch established in 1964, is now staffed to provide comprehensive traffic management services to the Canadian Government Supply Service and to the purchasing activities of Defence Production and the Canadian Commercial Corporation in connection with customs clearance, steamship bookings, marine insurance and rates on the movement of materiel. These services, as well as all aspects of furniture and effects and personnel movements (including negotiation of hotel rates) are available to all departments and agencies. Traffic Management Bulletins are circulated to ensure all departments are aware of current transportation activities.

Quality Assurance Branch

A Quality Assurance Branch is also in the process of formation. In June 1965 certain inspection personnel and their support staff were transferred to the Branch from Public Printing and Stationery and the Department of Public Works. Arrangements were worked out to enable these personnel to continue the services they had been providing previously until the Branch had become sufficiently operational to determine more specifically the nature and scope of its activities.

Regional Supply Centre

Within the Supply Service a number of regional supply centres will be established across Canada where the purchasing offices and warehouses will be combined. Each centre will reflect the headquarter's functions of cataloguing, specifications and standards, traffic management, quality assurance, and disposal at the regional level in order to make available the full capabilities of the Supply Centres to customer departments in the regions. Because of the concentration of federal departments in Ottawa, the Supply Centre there will probably be the largest and most important of all the Supply Centres.

When the remaining Supply Centres are established, federal departments and agencies in all areas of Canada will be served by a central purchasing agency and an integrated supply service whose aim will be to provide its customers with better service at lower cost.

Advisory and Services Functions

Canadian Government Repair Service

The Canadian Government Repair Service was established in July 1965 to provide maintenance, repair and overhaul services and technical advice to federal government departments and agencies for all non-military machines, equipment and other products located in Canada. The Office Equipment Repair Section of the Machinery Branch of this Department formed the nucleus of the Repair Service.

The formation of the Repair Service permits the Government to make the maximum use of commercial facilities, wherever it is the most economical and practical way of accomplishing repairs to equipment. Expenditures for the repair of office machines and equipment in 1965 amounted to \$820,000, 50 percent of which represented the cost of contracts with commercial facilities.

Comptroller's Branch

During 1965 the Comptroller's Branch provided financial services to the Departments of Defence Production and Industry, the Canadian Commercial Corporation, and other units of government reporting to the Minister requiring such services.

The services took the form of financial planning, accounting, financial control, and the provision of management reports designed to assist management in meeting planned objectives, measuring performance, and taking corrective action. It included also the development, implementation, and operation of the general and cost accounting and financial control used by the Canadian Government Supply Service.

Complete accounting records, based as far as possible on commercial practices, were kept in respect of Parliamentary appropriations, revolving funds, other assets and liabilities which are the responsibility of the Minister, and the Canadian Commercial Corporation.

A central inventory record was maintained in respect of Crown-owned buildings and equipment held by private contractors, as well as DND equipment loaned to contractors through DDP. The Branch also levied and collected rentals on Crown-owned assets used for commercial work.

The work of preparing and co-ordinating the annual and supplementary estimates was done in the Comptroller's Branch, which also acted in this connection in a liaison capacity with the Treasury Board staff.

All documents involving outgoing payments were pre-audited by the Comptroller, who was responsible for the collection of accounts.

The financial position of the Department as at March 31, 1965, is shown in the Balance Sheet and related schedules given in Appendix G, duly certified and reported upon by the Auditor General.

Contracts Branch

The Contracts Branch is responsible for all phases of individual contract review to ensure that the financial terms comply with Departmental policies.

It provides counsel to procurement branches at the precontractual stage, particularly in cases where unusual interpretations of financial policy are indicated by the complexity of the procurement.

The Branch provides executive secretarial support to the Contracts Approval Board and supplements as required, submissions to the Board with comprehensive analyses of cost and profit implications.

It is responsible for post-contractual financial activities, including a review of audit reports and settlement of terminated contracts.

The Branch also reviews and recommends applications for additional capital cost allowance and capital assistance.

Contract Policy Group

The Contract Policy Group acts in an advisory capacity with respect to the development and formulation of policies and procedures applicable to the Department's defence and civilian procurement activities.

It reviews new techniques for improving contract negotiations and administration, and formulates appropriate measures for their achievement. It analyzes current and potential problem areas and develops suitable policies and procedures to ensure their resolution.

The Group examines government policy statements, statutes and regulations, advises upon their applicability to the Department's procurement activity and devises procedures for their implementation. It is also responsible for the codification and interpretation of contractual policies and procedures.

General Services Branch

The General Services Branch provides administrative services to the Department. These include communications, office stationery and supplies, mail distribution, etc.

During 1965 a number of new practices were introduced to improve these services and, in addition, improvements were made to the special services provided in support of the Department's purchasing role.

The Branch actively participated in the integration of source records from other government departments which resulted in the compilation of a comprehensive directory of potential suppliers available for Government buying. The Branch also introduced the practice of public tender opening in the shipbuilding field.

The Branch continues to participate in the adjustment and development of procedures required by the transfer and integration of the purchasing operations of civil departments and agencies into this Department. The Branch was responsible for the preparation of the Canadian Defence Products publication for the French and German markets in Europe.

The Information Division, as the communications unit of the Branch, was responsible during 1965 for the preparation and distribution of a number of informational booklets relating to the activities of various branches, for press releases concerning the day-to-day operations of the Department, and for statements and speeches by the Minister and senior officials.

The Data Processing Division, in addition to providing statistical data and processing service, acquired a computer to control transactions of the supply service of the Canadian Government. The Division provides the basic data for industrial development work by conducting import studies also.

The Industrial Security Division continued to be responsible for the security and protection of classified contracts, implementation of national and international security requirements and policies as they affect Canadian defence contracts, and the inspection and surveillance of certain plants.

The Branch is continuing its program for extending the use of the French language, particularly in those areas which bring the Department in contact with the public.

Legal Adviser

It is the responsibility of the Legal Adviser to provide legal services to all branches of the Department as well as to the Deputy Minister's Office.

During the year a chief function of the Legal Adviser was advising on the form and legal content of production and purchasing agreements between the Department and private industry covering defence supplies for the Canadian Armed Services and for other governments, agreements covering research and development by Canadian industry and agreements with the United States military departments and NATO governments.

Legal advice was furnished on a variety of matters, including assignment of contracts, title, risk, insurance, subcontracting, bankruptcy, patents, inventions, royalties, license agreements, sales taxes, customs duties, land matters and the interpretation of contracts and statutes.

The foregoing legal services were also provided to Canadian Commercial Corporation.

Management Control Branch

The Management Control Branch is responsible to senior management of the Department of Defence Production for formulating over-all objectives and policies, developing plans, and co-ordinating departmental programs and assessing progress as well as providing the detailed planning and control information for effective decision making.

The responsibilities recently added include the development of service and cost criteria for purchasing and supply, evaluating on behalf of senior management the performance of the various units of the department in achieving these criteria, maintaining effective liaison with the customer, and ensuring that action is taken to remedy any non-achievement of cost and service criteria.

These new responsibilities have been focused in a Customer Service Group which makes up the major part of the establishment of the Branch.

Management Services Branch

The Branch carries out studies, prepares recommendations for management, provides information for the operating units and assists in implementing improvements in organization, practices and procedures.

The Management Services Branch is composed of four divisions. They are: Management Analysis, whose function is to improve the operations of the Department of Defence Production and the Department of Industry by reducing costs and increasing the efficiency of departmental activities.

Purchase Research Division, which works to reduce the cost of goods and services purchased by conducting research and making recommendations regarding quantity, quality and the prices of commodities bought and stored, and the best method of supply.

Facility Evaluation, which provides timely and accurate information regarding the capabilities of Canadian suppliers for use in both purchasing and industrial development and Operations Research, which applies advanced statistical and mathematical techniques, such as simulation and linear programming in the analysis of complex operations problems.

A fifth division, the Service Division, provides clerical, typing and stenographic support for the other four.

The divisions work together and each draws upon the specialized knowledge and resources of the others.

Personnel Branch

During 1965 the emphasis in the Personnel Branch was on manpower utilization and classification revision. The staff of the Department of Defence Production increased during the year from 2,103 to 2,481.

Purchasing and supply integration involved the absorption of staff from the Departments of Public Works, Citizenship and Immigration, and Transport. Key Regional Supply Centre directors were appointed, as were specialists in warehousing and distribution, traffic management, cataloguing, and quality assurance.

The Secretariat of the Canadian Government Specifications Board was transferred from the National Research Council. Despite the tight professional labor market, a number of senior economic and industrial research advisers were recruited. Industrial design specialists were recruited internationally. Techniques were refined for the continuing recruitment of industrial development analysts and engineering procurement specialists. New appraisal programs were introduced.

Training courses designed and conducted were: orientation (for new employees); management accounting, statistics, and management reporting and controls.

Seminars and workshops were conducted in managerial skills, purchasing practices, contracting techniques and industrial orientation. Recommendations were made and assistance given in the introduction of bilingual contracting at headquarters and the Quebec regional offices. French and English language training was expanded.

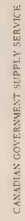
Professional staff was added to the Library and plans were made to meet the mounting requirements of both departments. The Accommodation Division was set up to meet the office and equipment demands of new and reorganized units. A staff relations unit was established in preparation for the introduction of collective bargaining into the public service.

Emergency Supply Planning Branch

The Emergency Supply Planning Branch was established in May 1960 to be responsible for the peacetime planning that would be required for the introduction of a War Supplies Agency immediately a nuclear attack was made on this country.

Such an agency, brought into existence at the outbreak of such a war, would control all aspects of production, distribution and pricing of supplies for civil and military use, other than production on farms and the catching, landing and processing of fish, which would remain the responsibility of the Departments of Agriculture and Fisheries respectively.

The plan evolved by the Branch has three aspects: First, an organization for a War Supplies Agency. Second, an inventory of stocks of survival items. Third, the drafting of the legal instruments necessary to permit effective control and use of commodities and production facilities after a nuclear attack.



ADVISORY & SERVICE FUNCTIONS

CANADIAN GOVERNMENT PURCHASING SERVICE

Appendix B

Senior Personnel of the Department

as at December 31, 1965

Minister

The Honourable C. M. Drury, P.C., C.B.E., D.S.O., Q.C., M.P.

Executive Assistant to the Minister F. M. Wanklyn

Deputy Minister

G. W. Hunter

Assistant Deputy Minister	W. H. Huck
Assistant Deputy Minister	D. B. Mundy
Assistant Deputy Minister	R. M. Keith
Assistant Deputy Minister	B. G. Barrow
Executive Assistant to the Deputy Minister	W. J. Mulock

Canadian Government Purchasing Service

Director, Aircraft Branch	A. D. Belyea
Deputy Director, Aircraft Branch	W. W. Reid
Director, Electrical and Electronics Branch	J. S. Glassford
Deputy Director, Electrical and Electronics Branch	S. I. Comach
Director, International Programs Branch	R. M. Trites
Deputy Director, International Programs Branch	M. L. Card
A/Director, Machinery Branch	J. J. McKennirey
Deputy Director, Machinery Branch	J. R. Brisson
Director, Shipbuilding and Heavy Equipment Branch	J. C. Rutledge
Deputy Director, Shipbuilding and Heavy Equipment Branch	F. J. Corrigan
Director, Mechanical Transport Branch	N. B. MacDonald
Director, General Purchasing Branch	D. M. Erskine

Canadian Government Supply Service

Director, Regional Purchasing Branch	H. G. Hunt
Director, Warehousing and Distribution Branch	R. C. D. Laughton
Director, Traffic Management Branch	G. J. Whyte
Deputy Director, Traffic Management Branch	J. R. Silk
A/Director, Quality Assurance Branch	C. L. Muir
A/Director, Specifications and Standards Branch	D. Wolochow
Deputy Director, Cataloguing Branch	C. E. Adams

Canadian Government Repair Service

General Manager K. P. Ellis

Advisory and Service Functions

Director-General, Administration A. R. Bailey
Director-General, Contracts Branch J. W. Long
Comptroller N. R. MacLean
 Deputy Comptroller T. E. Brown
Director, Contracts Authorization Division J. D. Langley
Director, Emergency Supply Planning Branch G. E. Woodside
Director, General Services Branch J. J. Tevlin
Legal Adviser F. F. Waddell
 Deputy Legal Adviser C. S. Stevenson
Director, Management Control Branch G. E. Woodside
Director, Personnel Branch H. R. Kotlarsky
Director, Management Services Branch T. J. Foran

Canadian Government Printing Bureau

General Manager C. B. Watt

Appendix C

Distribution of Departmental Staff

as of December 31, 1965

Deputy Minister's	14
Aircraft	168
Apparel and Textiles	41
Cataloguing	31
Chemicals	43
Comptroller's	115
Contracts	43
Contract Policy Group	7
Electrical and Electronics	180
Emergency Supply Planning Branch	61
Food Products	7
General Services	398
International Programs	130
Office of Legal Adviser	15
Machinery	164
Management Control	32
Management Services	39
Materials	10
Mechanical Transport	45
Personnel	123
Quality Assurance	8
Regional Purchasing	224
Regional Supply Centres	209
Shipbuilding	114
Specifications and Standards	24
Traffic Management	19
Transport Purchasing Group	92
Warehousing and Distribution	73
Wood Products	52
Grand Total	2,481

Appendix D

Crown Companies Associated with the Department of Defence Production

as at December 31, 1965

Canadian Arsenals Limited

President	J. R. Brisson
Vice-President	G. W. Hunter

Canadian Commercial Corporation

President	R. M. Trites
Secretary and Legal Adviser	F. F. Waddell
Comptroller	N. R. MacLean

Crown Assets Disposal Corporation

President	Louis Richard
Vice-President	G. W. Hunter
General Manager	D. L. Thompson
Assistant General Manager	J. M. Mackinnon
Secretary and Legal Counsel	R. LaPrairie

Polymer Corporation Limited

President and Managing Director	E. R. Rowzee
Vice-President	E. J. Buckler
Vice-President	L. D. Dougan
Vice-President	R. E. Hatch
Vice-President	I. C. Rush
Vice-President	S. Wilk
Treasurer	G. Bracewell
Secretary and Chief Legal Officer	W. J. Dyke

Appendix E

Regional Purchasing Offices and Offices Located Outside Canada

Addresses as at December 31, 1965

Regional Purchasing Offices

In Canada

ST. JOHN'S, NFLD.	Room 401, Main Post Office Building, Water Street (P.O. Box 487).
HALIFAX, N.S.	Room 527, Federal Building, Bedford Row, (P.O. Box 1655).
SAINT JOHN, N.B.	Room 408, Sadim Building, Canterbury and Duke Streets.
QUEBEC, P.Q.	Gare Maritime Champlain, Chemin des Foulons.
MONTREAL, P.Q.	685 Cathcart Street.
OTTAWA, ONT.	1010 Somerset Street West.
TORONTO, ONT.	Room 1214, Mackenzie Building, 36 Adelaide Street East.
LONDON, ONT.	388 Dundas Street, (P.O. Box 2275 - Terminal "A").
WINNIPEG, MAN.	Room 326 E, 344 Edmonton Street.
REGINA, SASK.	Room 302, New Post Office Building, Cornwall and S. Railway Streets.
CALGARY, ALTA.	Room 725, Public Building, 8th Avenue and 1st Street East.
EDMONTON, ALTA.	Room 309, Federal Building, 107th Street and 99th Ave.
VANCOUVER, B.C.	Harry Stevens Building, 125E, 10th Avenue.
VICTORIA, B.C.	Room 318, Canada Customs House, 816 Government Street.

Outside Canada

WASHINGTON, U.S.A.	Canadian Department of Defence Production, 2450 Massachusetts Ave., (P.O. Box 4897, Cleveland Park Station), WASHINGTON 8, D.C., U.S.A.
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LONDON, ENGLAND Canadian Department of Defence
Production,
1 Grosvenor Square,
LONDON W. 1, England.

PARIS, FRANCE Canadian Department of Defence
Production,
1, rue Chanez,
PARIS 16e, France.

KOBLENZ, Germany Canadian Department of Defence
Production,
54 Koblenz-Pfaffendorf,
Emserstrasse 21, Germany.

Other Offices Outside Canada

WASHINGTON, U.S.A. Canadian Department of Defence
Production,
2450 Massachusetts Ave.
(P.O. Box 4897, Cleveland Park
Station),
WASHINGTON 8, D.C., U.S.A.

LONDON, ENGLAND Canadian Department of Defence
Production,
MacDonald House,
1 Grosvenor Square,
LONDON W. 1, England.

PARIS, FRANCE
Defence Production
Attache c/o Canadian Embassy,
35 avenue Montaigne,
PARIS 8^e, France

Office of Departmental Counsellor (Defence Production)
Representative on Canadian Delegation to NATO,
Canadian Delegation Place du Marechal de Lattre de Tassigny,
to North Atlantic Council PARIS 16^e, France

BONN, GERMANY
Defence Production
Attache c/o Canadian Embassy,
Zitelmannstrasse 22,
BONN, Germany

AYRSHIRE, SCOTLAND Canadian Department of Defence Production,
c/o Scottish Aviation Limited,
Prestwick Airport,
AYRSHIRE, Scotland

NEW YORK, N.Y.Consul and Assistant Trade Commissioner,
Department of Trade and Commerce,
c/o Canadian Consulate General
680 Fifth Avenue,
NEW YORK 19, N.Y., U.S.A.

DAYTON, OHIOCanadian Department of Defence Production,
MCL, DDP
Wright-Patterson Air Force Base,
OHIO, U.S.A.

BOSTON, MASS.Canadian Department of Defence Production,
L.G. Hanscom Field,
BEDFORD, Mass., 01731, U.S.A.

PHILADELPHIA, PA.Canadian Department of Defence Production,
U.S. Army Electronics Support
Command/DetA
ATTN: SELSC/P/CD
225 South 18th Street,
PHILADELPHIA, Pa., 19103 U.S.A.

DETROIT, MICH.Canadian Department of Defence Production,
c/o Michigan Army Missile Plant,
38111 Van Dyke,
WARREN, Michigan 48090

ST. LOUIS, MO.Canadian Department of Defence Production,
AVCOM,
P.O. Box 209, Main Office,
ST. LOUIS, Mo., 63166, U.S.A.

LOS ANGELES, CALIF.Canadian Department of Defence Production,
c/o Los Angeles Contract
Management District,
55 South Grand Avenue,
PASADENA, Calif.

CHICAGO, ILL.Canadian Consulate General,
Consul and Assistant Trade Commissioner,
310 South Michigan Avenue,
Suite 2000,
CHICAGO 4, Ill., U.S.A.

NEW ORLEANS, LA.Consul and Assistant Trade Commissioner,
Department of Trade and Commerce,
c/o Canadian Consulate General,
Suite 1710,
225 Baronne Street,
NEW ORLEANS 12, La., U.S.A.

Appendix F

Statistics of Defence and other Contracts and Expenditures

The statistical tables in this appendix contain information for calendar years 1964 and 1965 on contracting and related spending in connection with the Canadian defence procurement (and the construction program up to March 31, 1965) foreign government prime defence contracts placed through Canadian government agencies, and contracts placed on behalf of other Canadian government departments and agencies. These statistics measure the value of contracts as they are issued to contractors and suppliers and the value of payments as they are made to them.

The net value of contracts issued, as shown in these tables, includes the value of amendments which increased or decreased commitments under existing contracts, as well as the value of new contracts. In some cases, therefore "credit" net values are shown because decreasing amendments to contracts placed in earlier years have exceeded the value of new contracts and increasing amendments issued.

The tables are shown in pairs, with the first "a" containing data on the net value of contracts issued and the second "b" containing the value of expenditures against these contracts and against similar contracts placed in earlier years.

Tables 1a and 1b contain summary statistics relating to all contracts issued by the Department of Defence Production and its associated Crown companies, Canadian Commercial Corporation, and up to March 31, 1965, Defence Construction (1951) Limited, with the exception of those involving payments out of the Defence Production Revolving Fund. Both contract and expenditure data are broken down by the various sources that requisition and pay for the goods or services involved.

Tables 2a and 2b contain statistics related to contracting by the Department of Defence Production and, up to March 31, 1965, Defence Construction (1951) Limited, on behalf of the Department of National Defence. Payments against these contracts are made from funds appropriated by Parliament for the Department of National Defence. The figures in these tables are broken down by defence programs (as defined below) and the country in which the prime contractor is located (based on the address to which the contract is sent).

Tables 3a and 3b contain data relating to prime defence contracts placed in Canada by foreign governments through Canadian government agencies, such as Canadian Commercial Corporation. The Department of Defence Production issues most of the contracts for Canadian Commercial Corporation.

Tables 4a and 4b relate to certain activities in support of Canadian defence industry that are financed from Defence Production parliamentary appropriations.

Definitions of the Defence Procurement Programs

This classification relates all procurement, insofar as possible, to readily identifiable end-items of military and other hardware, such as ships, electronic devices, guns, types of ammunition, clothing etc. Thus a particular program includes, in addition to the end-item, those components or parts that become an integral part of the equipment, as well as the associated services such as design and development, installation, maintenance, and repair and overhaul.

AIRCRAFT: This group of projects includes complete aircraft and items to be physically incorporated into complete aircraft, such as airframes, engines, propellers, navigational and flight instruments, electrical systems and their components. Design and development services, maintenance, and repair and overhaul of aircraft are included also. Excluded are specialized accessories such as armament and communication equipment, photographic equipment, training devices and ground support equipment and associated services.

ARMAMENT: This program includes projects involving weapons such as small arms, guns, howitzers and their components; light, medium and heavy ammunition of all types; mines, depth charges and torpedoes; rockets, missiles and their launchers; and explosives and certain defence chemicals. Electronic fire control projects, however, are excluded.

ELECTRONICS: Electronics and communication equipment projects of all types are included in this program. Telephone, telegraph, radio, radar, underwater sound, fire control, flight and tactics simulation, and test equipment are included. Development, maintenance, management and transportation services associated with the procurement of electronics and communication equipment are also included. Photographic equipment and navigational and flight instrument projects are excluded.

SHIPS: This program includes destroyer escorts, frigates, minesweepers, aircraft carriers, submarines, other floating equipment and ship components such as hulls, superstructures, propulsion machinery, boilers, condensers, heating and electrical systems etc., as well as reconversion, refit and repair projects. Armament and electronic equipment projects are excluded.

TANK-AUTOMOTIVE: Included in this group of projects are tanks and vehicles of both armoured and non-armoured types and the associated services of development, maintenance and repair and overhaul. Cars, trucks, buses and components, such as tires and tubes are also included. Excluded are armament and electronic equipment projects.

FUELS AND LUBRICANTS: This program groups projects providing for supplies of petroleum, gas, coal and coke and their products; principally aviation turbine fuel and gasoline, motor vehicle gasoline and heating fuels.

CLOTHING AND EQUIPAGE: Items of personal clothing, footwear and equipment such as mess kits, steel helmets, tents, etc., are included in this program. Protective and lifesaving equipment projects are excluded.

FOOD AND SUBSISTANCE: This program includes all projects involving the supply of food, beverages and tobacco.

CONSTRUCTION: This program includes all construction contracts for building structures, runways, etc., as well as the consultant services, repairs and maintenance involved. Most of these contracts are placed by Defence Construction (1951) Limited.

CONSTRUCTION EQUIPMENT: All purchased building supplies and equipment to be physically incorporated in structures and facilities, construction machinery, mining machinery and all equipment necessary to build a structure or facility are provided for in this program. Production machinery and conveying, elevating and material handling equipment projects are excluded.

PRODUCTION EQUIPMENT: Metal working machinery, special and general purpose industrial machinery, trade and service industry equipment, agricultural machinery, etc., projects are provided for in this program. Excluded are projects involving mobile equipment, generator sets, office machinery and equipment, protective and lifesaving equipment, transportation equipment and conveying, elevating and materials handling equipment.

Table 1-a.—Net Value of All Contracts Issued

Sources for which Contracts Issued	1964	1965	% Change 1965/1964
	\$000	\$000	%
Department of National Defence	497,158	473,534	— 4.8
Department of Defence Production:			
Votes in support of Defence Industry	9,565(a)	1,463	— 85
Foreign Governments:			
United States	84,557	154,384	+ 82
Britain	12,018	1,843	— 85
Federal Republic of Germany	3,807	3,221	— 15
Other Governments	12,035	2,709	— 77
Canadian External Aid	13,075	19,650	+ 50
Other Government Departments and Agencies	26,171	56,610	+116
Total	658,386	713,414	+ 8.4

Table 1-b.—Expenditures Against All Contracts Issued

Sources Paying the Contracts	1964	1965	% Change 1965/1964
	\$000	\$000	%
Department of National Defence	546,232	462,732	— 15.3
Department of Defence Production:			
Votes in Support of Defence Industry	10,489(a)	1,656	— 84
Foreign Governments:			
United States	84,557	154,384	+ 82
Britain	1,064	1,538	+ 45
Federal Republic of Germany	5,081	4,244	— 16
Other Governments	13,898	6,574	— 53
Canadian External Aid	15,520	13,826	— 9
Other Government Departments and Agencies	25,052	42,773	+ 71
Total	756,055	628,834	— 16.8

(a) Includes \$8,891 million of contracts and \$8,935 million of expenditures to sustain Canadian industrial technological capability under Vote 25, transferred to Dept. of Industry under Vote 5 as of April 1, 1964.

Table 2-a.—Net Value of Canadian Government Defence Contracts Issued

1965

Program	Canada	United States	Britain	France	Other Countries	Total
	\$000	\$000	\$000	\$000	\$000	\$000
Aircraft	117,643	10,440	1,992	27	56	130,159
Armament	12,952	10,718	306	1,882	1,908	27,765
Electronics	87,617	14,543	359	107	245	102,871
Ships	27,035	678	23,547	—	80	51,339
Tank-automotive	8,262	8,961	68	89	166	17,547
Fuels and lubricants	41,281	11	103	343	725	42,463
Clothing and equipage	14,330	31cr	6	1	5	14,311
Food and subsistence	21,900	26	—	16	33	21,975
Construction (a)	2,208	—	—	370	48	2,626
Construction equipment	14,390	614	15	238	533	15,790
Production equipment	10,156	504	41	23	50	10,775
Other programs	33,218	1,392	71	393	839	35,913
Total	390,991	47,856	26,509	3,489	4,689	473,534

1964

Program	Canada	United States	Britain	France	Other Countries	Total
	\$000	\$000	\$000	\$000	\$000	\$000
Aircraft	95,930	48,592	1,514	5	9	146,050
Armament	14,603	4,079	2,285	139	128	21,234
Electronics	93,862	1,561	744	311	331	96,809
Ships	21,517	225	15,239	—	—	36,981
Tank-automotive	14,004	12,812	505	135	215	27,671
Fuels and lubricants	42,761	12	256	243	285	43,557
Clothing and equipage	10,715	327	26	2	1	11,971
Food and subsistence	22,928	34	—	10	11	22,983
Construction	30,573	—	—	1,195	1,090	32,858
Construction equipment	13,551	234	89	554	596	15,025
Production equipment	9,952	2,091	176	15	26	12,260
Other programs	27,725	983	280	828	842	30,658
Total	398,121	70,950	21,114	3,437	3,534	497,158

(a) Values to March 31, 1965 only.

**Table 2-b.—Expenditures Against Canadian Government Defence Contracts
1965**

Program	Canada	United States	Britain	France	Other Countries	Total
	\$000	\$000	\$000	\$000	\$000	\$000
Aircraft	114,196	42,981	1,694	26	56	158,954
Armament	13,661	7,386	652	663	438	22,800
Electronics	88,508	11,452	288	115	246	100,609
Ships	36,213	206	8,627	—	80	45,126
Tank-automotive	5,574	8,299	999	81	174	15,127
Fuels and lubricants	23,147	58	115	340	730	24,390
Clothing and equipage	11,816	19	14	1	3	11,853
Construction equipment	12,551	253	89	245	527	13,665
Construction (a)	6,948	—	—	211	208	7,367
Food and subsistence	21,051	27	—	16	35	21,129
Production equipment	8,494	885	40	24	51	9,492
Other	29,727	1,199	60	392	842	32,221
Total	371,886	72,765	12,578	2,114	3,390	462,732

1964

Program	Canada	United States	Britain	France	Other Countries	Total
	\$000	\$000	\$000	\$000	\$000	\$000
Aircraft	160,935	29,217	1,087	5	10	191,255
Armament	9,657	5,295	786	2,106	128	17,972
Electronics	102,759	9,095	519	311	403	113,086
Ships	35,574	409	12,169	—	—	48,151
Tank-automotive	12,558	11,363	1,281	135	213	25,550
Fuels and lubricants	25,167	11	122	243	272	25,815
Clothing and equipage	10,188	354	33	2	1	10,578
Construction equipment	13,012	240	46	554	566	14,413
Construction	33,250	—	—	1,312	589	35,152
Food and subsistence	21,960	33	—	10	12	22,015
Production equipment	8,672	226	158	15	25	9,096
Other	29,753	1,433	284	828	847	33,150
Total	463,485	57,675	16,484	5,522	3,066	546,232

(a) Values to March 31, 1965 only.

**Table 3-a.—Net Value of Foreign Government Prime Contracts Placed in Canada
1965**

Program	United States	Britain	West Germany	Other Countries	Total
	\$000	\$000	\$000	\$000	\$000
Aircraft	99,376	—	512	331 ^{cr}	99,556
Armament	17,062	484	2	1,125	18,673
Electronics	26,855	1,061	1,511	446	29,874
Ships	1,828	—	—	3	1,831
Fuels and lubricants	42	—	—	3	44
Tank-automotive	340	—	—	249	589
Construction (b)	505	—	—	—	505
Clothing and equipage	226	14	—	3	242
Construction equipment	4,435	—	—	319	4,755
Food and other subsistence	—	284	—	—	284
Production equipment	1,190	—	—	51	1,241
Other	2,525	(a)	1,196	841	4,562
Total	154,384	1,843	3,221	2,709	162,157

1964

Program	United States	Britain	West Germany	Other Countries	Total
	\$000	\$000	\$000	\$000	\$000
Aircraft	37,103	10,000	1,812	6,023	54,938
Armament	3,517	617	—	5,664	9,798
Electronics	32,199	901	1,928	233	35,261
Ships	4,015	—	—	3	4,018
Fuels and lubricants	152	—	—	—	152
Tank-automotive	549	—	10	9	569
Construction	973	—	—	77	1,050
Clothing and equipage	69	13	—	4	86
Construction equipment	2,047	22	(a)	2	2,071
Food and other subsistence	—	465	—	—	465
Production equipment	2,871	—	1	20	2,892
Other	1,062	(a)	56	—	1,117
Total	84,557	12,018	3,807	12,035	112,417

(a) Less than \$500.

(b) Values to March 31, 1965 only.

**Table 3-b.—Expenditures Against Foreign Government Prime Contracts
Placed in Canada**

1965

Program	United States	Britain	West Germany	Other Countries	Total
	\$000	\$000	\$000	\$000	\$000
Aircraft	50,108	—	995	3,646	54,749
Armament	3,297	758	12	2,426	6,493
Ships	2,088	—	—	(a)	2,088
Electronics	33,354	521	3,196	243	37,314
Tank-automotive	428	—	—	8	436
Fuels and lubricants	—	2	—	(a)	2
Clothing and equipage	111	4	—	5	120
Construction (b)	212	—	—	7	219
Construction equipment	3,137	33	(a)	64	3,234
Food and subsistence	—	220	—	—	220
Production equipment	1,484	—	1	22	1,507
Other	1,271	(a)	41	160	1,472
Total	95,491	1,538	4,244	6,581	107,854

1964

Program	United States	Britain	West Germany	Other Countries	Total
	\$000	\$000	\$000	\$000	\$000
Aircraft	86,728	—	2,431	10,173	99,332
Armament	5,563	481	—	1,419	7,463
Ships	2,497	—	—	2	2,499
Electronics	36,857	200	2,650	1,973	41,680
Tank-automotive	292	—	—	—	292
Fuels and lubricants	226	—	—	—	226
Clothing and equipage	43	10	—	5	58
Construction	1,002	—	—	—	1,002
Construction equipment	3,467	—	—	2	3,469
Food and subsistence	—	372	—	1	373
Production equipment	1,471	—	—	25	1,496
Other	573	1	—	298	872
Total	138,719	1,064	5,081	13,898	158,762

(a) Less than \$500.

(b) Values to March 31, 1965 only.

Table 4-a.—Net Value of Contracts to Assist Canadian Defence Industry

Category of Assistance	1964	1965
Care, maintenance and custody of Crown owned standby defence assets	\$000	\$000
Capital assistance	120	84
Establishment of competitive production capacity through absorbing certain preproduction and tooling costs	104	58
Defence Industry Modernization	44cr	Nil ⁽¹⁾
Establishment of qualified sources for the production of component parts and materials		1,232
To sustain Canadian industrial technological capability	494	89
Total	8,891 ⁽²⁾	Nil ⁽²⁾
Total	9,565	1,463

Table 4-b.—Expenditures Against Contracts to Assist Canadian Defence Industry

Category of Assistance	1964	1965
Care, maintenance and custody of Crown owned standby defence assets	\$000	\$000
Capital assistance	738	269
Establishment of competitive production capacity through absorbing certain preproduction and tooling costs	127	132
Defence Industry Modernization	283 ⁽¹⁾	Nil ⁽¹⁾
Establishment of qualified sources for the production of component parts and materials		873
To sustain Canadian industrial technological capability	406	382
Total	8,935 ⁽²⁾	— ⁽²⁾
Total	10,489	1,656

⁽¹⁾ This Vote, Vote 5 (Primary 22) has been phased out, effective March 31, 1965.

⁽²⁾ This Vote, Vote 25, was transferred to Dept. of Industry, Vote 5, April 1, 1964. (The overall net value of contracts placed in the calendar year 1964 totalled \$35,133,000 while expenditures totalled \$20,084,000. Comparative statistics for 1965 were \$14,900,000 for contracts and \$22,184,000 for expenditures).

Appendix G

Ottawa, March 1, 1966.

The Honourable C. M. Drury,
Minister of Industry,
Ottawa.

SIR,

I have examined the Balance Sheet of the Department of Defence Production and the Statement of Trading Operations of the Defence Production Revolving Fund for the year ended March 31, 1965.

The general account section of the Balance Sheet includes capital and other assets acquired through the medium of parliamentary appropriations for which the Department is accountable. In accordance with established government practice, these assets are carried at cost and no provision is made for known diminution in value of the clothing and footwear or for depreciation of the capital assets.

Included in the strategic material inventories in the Defence Production Revolving Fund section of the Balance Sheet is material in the amount of \$716,840 that is not financed by the Revolving Fund and therefore is not an asset of the Fund. This material, the cost of which had been financed by parliamentary appropriations of the Department of Trade and Commerce prior to 1951-52, was taken over by the Department of Defence Production at its inception.

The Defence Production Revolving Fund, established under section 16 of the Defence Production Act, contained an accumulated surplus of \$1,818,444 at March 31, 1965. In our report last year we expressed the opinion that this accumulating surplus should have been transferred from the Revolving Fund as revenue and we continue to hold this opinion. The reasons underlying this view are to be found in paragraph 60 of the Report of the Auditor General to the House of Commons for the year ended March 31, 1965.

I now report that, in my opinion, subject to the foregoing the accompanying Balance Sheet presents fairly the financial position of the Department at March 31, 1965 and the Statement of Trading Operations gives a true and fair view of the trading operations of the Defence Production Revolving Fund for the year ended on that date.

Yours faithfully,

A. M. HENDERSON,
Auditor General of Canada.

Balance Sheet as at March 31, 1965

(with comparative figures as at March 31, 1964)

Exhibit I

GENERAL ACCOUNT

ASSETS	GENERAL ACCOUNT		LIABILITIES AND GOVERNMENT EQUITY	
	1965	1964	1965	1964
Deposits with Receiver General	\$ 455,306	\$ 270,761	Accounts payable and other liabilities ...\$	507,164
Imprest funds	6,352	8,201	Equity of Government of Canada, Appendix I	519,955
Accounts receivable	261,949	216,589		176,192,937
Receivable under agreements of sale of land, buildings and equipment	4,130,983	5,934,497		207,352,805
Loan to Township of Toronto	193,656	218,193		
Working capital advances to Crown Corporations	11,000,000	13,000,000		
Inventory of clothing and footwear, at cost	4,913,690	—		
Investments in Crown Corporations at cost—				
Capital Stock:				
Polymer Corporation Limited	\$ 30,000,000	30,000,000		
Defence Construction (1951) Limited	30	30		
Canadian Arsenal Limited	30	30		
Land, buildings, machinery and equipment at cost including rehabilitation and installation costs	30,000,060	30,000,060		
	125,738,105	158,224,459		
	<u>\$ 176,700,101</u>	<u>\$ 207,872,760</u>		

In addition to the assets listed above, the Department has recorded in its books, expenditure in the amount of \$180,409,906 for production tooling, dies and jigs, title to which is vested in the Crown.

DEFENCE PRODUCTION REVOLVING FUND

Accounts receivable	\$ 14,740,837	\$ 7,560,026	Accounts payable and deferred liabilities	\$ 2,890,076	\$ 2,035,312
Progress payments and advances to suppliers	43,717,413	73,512,059	Progress payments from customers	32,620,849	59,813,352
Working capital advances	330,000	1,479,000	Equity of Government of Canada—		
Inventories of strategic materials, etc., at cost (market value \$8,510,661)	8,224,439	—	Defence Production Revolving Fund, as provided by Section 16 of the Defence Production Act (authorized \$100,000,000)	\$ 30,157,245	27,791,418
Inventory shortage, cobalt, at cost—Note 1	1,190,765	9,415,204	Surplus:		
		9,061,616	Balance as at April 1, 1964	1,255,779	881,994
			Add: Net income per Statement of Trading Operations ..	562,665	373,785
			Balance as at March 31, 1965, Appendix II	1,818,444	1,255,779
				31,975,689	29,047,197
			Advances for the purchase and storage of strategic materials authorized by parliamentary appropriations prior to the inception of the Department	716,840	716,840
				32,692,529	29,764,037
				\$ 68,203,454	\$ 91,612,701

Note 1—An inventory of 343,552 lbs. of refined cobalt was certified as being on hand in the custodian's warehouse at March 31, 1965, however a shortage of 315,390 lbs. costing \$1,190,765 (market value \$558,240) was discovered in May 1965 and is currently under investigation.

Approved on behalf of the Department
N. R. MacLEAN
Comptroller.

I have examined the above Balance Sheet and the related Statement of Trading Operations of the Defence Production Revolving Fund and have reported thereon under date of March 1, 1966, to the Minister of Industry.

A. M. Henderson,
Auditor General of Canada.

Summary of transactions in Equity of Government of Canada Account

for the year ended March 31, 1965

Balance at April 1, 1964		\$ 207,352,805
Add:		
Transfer of assets from other departments and agencies	\$ 6,866,924	
Transfer of liabilities to other departments	187,787	
Assets acquired from appropriations	77,549	
Sundry	13,082	
		7,145,342
		214,498,147
Deduct:		
Decrease in fixed assets in custody of Canadian Arsenals Limited	25,072,212	
Transfer of surplus assets to Crown Assets Disposal Corporation	3,780,168	
Transfer of assets to other government departments and agencies	2,875,186	
Write off of balances remaining after sale of assets	2,192,234	
Decrease in working capital advance Canadian Com- mercial Corporation	2,000,000	
Payments received under agreements of sale of land, buildings and equipment	1,892,022	
Assets written off due to completion of contracts, dismantling, etc.	376,423	
Receipts from sales recorded by Treasury as revenue in prior years	116,965	
		38,305,210
Balance at March 31, 1965		\$ 176,192,937

Defence Production Revolving Fund
Analysis of accumulated surplus
as at March 31, 1965

(with comparative figures as at March 31, 1964)

	1965	1964
Interest earned on—		
Agreement of sale of aircraft\$ 1,111,265		\$ 559,893
Working capital advance for the operation of		
Crown-owned plant 14,434		—
	<u>\$ 1,125,699</u>	<u>559,893</u>
Profit on strategic materials sold 463,839		463,449
Deduct: Warehousing and other expenses 111,988		108,457
		<u>351,851</u>
Profit on cloth and wool sold—operations completed	340,894	340,894
	<u>\$ 1,818,444</u>	<u>\$ 1,255,779</u>
Surplus as at March 31, 1965		

Defence Production Revolving Fund
Statement of Trading Operations for
the year ended March 31, 1965

(with comparative figures for the year ended March 31, 1964)

	1965	1964
Sales at cost:		
Aircraft and components	\$ 93,091,984	\$ 31,471,861
Research and development	13,048,450	4,002,149
Munitions and components	1,878,591	2,633,914
Sonobuoys	75,000	1,096,875
Shipbuilding components	(171,042)	210,419
	<u>\$ 107,922,983</u>	<u>\$ 39,415,218</u>
Strategic materials:		
Sales	\$ 34,424	188,296
Cost of sales	34,034	175,240
Gross profit	390	13,056
Interest earned on:		
Agreements of sale of aircraft	\$ 551,372	365,471
Working capital advance for the operation of Crown-owned plant	14,434	—
	<u>565,806</u>	<u>365,471</u>
	566,196	378,527
Deduct: Warehousing and other expenses—strategic materials	3,531	4,742
Net Income	<u>\$ 562,665</u>	<u>\$ 373,785</u>

Statement of Expenditures for the year ended March 31, 1965

(with comparative figures for the year ended March 31, 1964)

	1965	1964
Vote 1 Departmental Administration		
Salaries	\$12,154,348	\$10,214,630
Living allowances	253,795	235,114
Travelling and removal expenses	423,490	323,404
Office Stationery, supplies and equipment	473,077	341,251
Repairs to office equipment and acquisition of spare parts	435,907	395,798
Telephones and telegrams	281,154	246,216
Professional and special services	192,152	138,560
Postage	74,692	58,529
Freight, express and cartage	148,444	139,922
Rental of office accommodation	25,292	3,467
Publication of departmental reports and other material	16,234	21,014
Materials and supplies	8,809	6,309
Acquisition or construction of equipment	14,584	
Repairs and upkeep of equipment	8,874	5,765
Sundries	37,053	23,013
Care, maintenance and custody of standby defence plants, etc.	583,180	770,094
Grants to municipalities in lieu of taxes	227,172	187,677
	\$15,358,257	13,110,763
Vote 5 Establishment of production capacity and for capital assistance		
Capital Account		
Equipment	326	48,430
Accountable advances to contractors	75,398	156,457
	75,724	204,887
Income Account		
Defence Industry modernization	474,282	
Establishment of production capacity	100,000	1,003,025
	574,282	1,003,025
	650,006	1,207,912
Vote 10 Establishment of qualified sources for production of component parts and materials		
Capital account		2,000
Income account	439,209	448,000
	439,209	450,000

Vote 15 Directorate of Printing (Note 1)		
Administration	565,642	635,493
Plant equipment and replacements	335,777	82,638
	<hr/>	<hr/>
	901,419	718,131
<hr/>		
Vote 35 Defence Construction (1951) Limited		
Administration	2,200,166	2,509,825
<hr/>		
Vote 40 Canadian Arsenal Limited		
Administration and operation	4,476,620	4,257,976
<hr/>		
Vote 45 Canadian Arsenal Limited		
Construction and improvement	3,603	
Equipment	115,125	268,330
	<hr/>	<hr/>
	118,728	268,330
<hr/>		
Statutory—Gratuities to families of deceased personnel	1,990	
Statutory—Refund of prior year's rental revenue		36,416
	<hr/>	<hr/>
Total Expenditure	\$24,146,395	\$22,559,353 (Note 1)
	<hr/>	<hr/>

NOTE 1: The total 1963-64 expenditure shown in the 1964 Annual Report of the Department was \$38,946,158 but for comparative purposes this has been reduced to \$22,559,353 (the amount shown in the Public Accounts 1964-65) to reflect activities transferred to and from other departments in 1964-65: Vote 5, \$18,392,664, and Minister's salary and car allowance \$5,394 transferred to the Department of Industry; \$1,946,288 transferred from the Department of Public Printing and Stationery (Vote 1, \$635,493; Vote 5, \$1,228,157; Vote 30, \$82,638). In addition, the 1964 figure was reduced by \$64,965 to convert expenditures from an accrual basis to a cash basis and thus correspond with the figures in the Public Accounts.

**Statement of Revenue for the year ended
March 31, 1965**

(with comparative figures for the year ended March 31, 1965)

	1965	1964
<i>Non-tax Revenue</i>		
Return on investments	\$ 5,593,577	\$ 4,252,165
Privileges, licenses and permits		1,355
Proceeds from sales	9,865,343	12,436,072
Services and service fees	143,480	152,716
Refunds of previous years' expenditure	14,032	15,269
Miscellaneous	27,035	9,258
	<hr/>	<hr/>
	15,643,467	16,866,835
	<hr/>	<hr/>

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annual report 1966



DEPARTMENT
OF DEFENCE
PRODUCTION



SIXTEENTH REPORT

of the

DEPARTMENT

of

DEFENCE

PRODUCTION

1966



Hon. C. M. DRURY, P.C., C.B.E., D.S.O., Q.C., M.P., *Minister*

G. W. HUNTER, *Deputy Minister*

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*To His Excellency The Honourable Robert T. Taschereau,
P.C., LL.D., Administrator and Chief Justice of Canada.*

March 21, 1967

MAY IT PLEASE YOUR EXCELLENCY:

I have the honour to submit to your Excellency the Report of the Department of Defence Production for the calendar year 1966.

A summary of the operations and services rendered by this Department, under their respective headings, is laid before your Excellency.

Respectfully submitted,

A handwritten signature in dark ink, consisting of a series of loops and a long vertical stroke on the right side.

Minister of Defence Production.

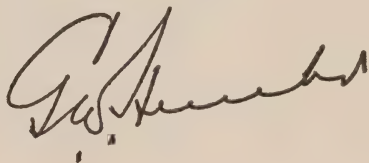
*The Honourable C. M. Drury, P.C., C.B.E., D.S.O., Q.C., M.P.,
Minister of Defence Production,
Ottawa, Ontario.*

March 21, 1967

Dear Sir:

I have the honour to submit the Report of the Department of Defence Production, which covers the operations and services rendered during the calendar year 1966.

Yours faithfully,

A handwritten signature in dark ink, appearing to be 'G. H. ...', written in a cursive style.

Deputy Minister.

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1966 Departmental Highlights

- Total net value of all prime contracts \$1,030 million, an increase of more than \$317 million over 1965.
- Contracts placed for external aid programs rose 80% from \$19.65 million in 1965 to \$35.42 million.
- Purchases for civil departments totalled \$90.3 million, an increase of \$34 million from 1965.
- Manufacturing criteria for Canada's national flag issued.
- Project management techniques inaugurated.
- 27 Motor vehicle safety standards developed and "The Guide to Traffic Safety" published.
- Purchases totalling \$10 million made for Expo '67.
- \$49 million contract for naval support ships *Protecteur* and *Preserver*, largest single shipbuilding contract ever placed in Canada.

Role of the Department

The original role of the Department of Defence Production, which was established in 1951 under the provisions of the Defence Production Act in order to carry out the procurement function for Canada's defence program, has been considerably expanded in recent years.

As a result of the responsibilities given to the Department in 1963 by the Government relating to the implementation of certain recommendations of the Royal Commission on Government Organization, a central purchasing and supply agency has been established to satisfy both civil and defence needs.

In line with the Government's intention to establish a common service agency responsible for purchasing and supply, the Department is now clearly emerging in this role.

Faced with an increasingly higher cost of developing and producing modern military equipment, the former policy of unilateral weapons development for NATO and friendly countries is rapidly giving way to a variety of bilateral and multilateral dealings between allies and other friendly nations. These are invariably designed to replace the waste of duplication with the savings of co-operation. In order to provide the most modern weapons for its Armed Forces, Canada has had to take advantage of the economies inherent in securing defence equipment as a result of selective participation in the major programs of our allies.

In its present role, the Department is also responsible for undertaking measures to encourage the development and production in Canada of defence equipment for sale to our allies with a view to maintaining an equitable balance of payment as well as to maximize the technological advances to the nation.

Accordingly, these measures include defence development and procurement sharing with the United States and defence production activities with other members of the NATO Alliance and friendly countries. It also involves the purchasing in Canada of those goods and services required by foreign governments under a variety of international agreements.

The Minister reports to Parliament, not only for the Department of Defence Production, but also for the following Crown corporations:—Canadian Commercial Corporation, Canadian Arsenals Limited, Crown Assets Disposal Corporation and the Polymer Corporation Limited. Each of these organizations issue their own annual report as does the Canadian Government Printing Bureau, which reports to the Minister through the Deputy Minister of Defence Production.

Departmental Re-Organization

During 1966 the organization of the Department of Defence Production was changed to implement the recommendations of the Glassco Royal Commission on Government Organization relating to the formation of a central purchasing and supply agency for the Federal Government. Other changes were made to improve the overall effectiveness of the Department's operations.

Under the re-organization there will be further development of two key services within the Department, the Canadian Government Supply Service and the Canadian Government Purchasing Service. The CGSS will be augmented and the present structure changed to create greater self-sufficiency. Supply centres will be operated at the regional level with supporting headquarters' branches covering the functions of traffic management, cataloguing, specifications and standards, quality management and supply management. The Crown Assets Disposal Corporation will continue to be closely associated with the Department.

In a similar fashion to CGSS, the Canadian Government Purchasing Service will be created with a high degree of self sufficiency. The CGPS will contain five operational branches: Aerospace, Electrical and Electronics, Shipbuilding, Armament and Vehicles, and General Purchasing. Operations will be supported by branches providing the contracts analysis, purchase research, contract administration, and legal functions.

An Assistant Deputy Minister — Operations will be responsible for DDP direction of all major acquisition project activity, both civil and military and the Defence Export Program. This work will be carried out by a new Project Management Branch and a re-organized International Programs Branch. The ADM Operations will also carry responsibility for certain industrial development activities within the Department of Industry.

Surveillance of departmental operations will be maintained by a new Planning and Control Branch which will be responsible for integrating the plans, programs and activities of the supply, purchasing and operations functions, and for ensuring compatibility of policies and procedures with those of customer departments. This new branch, together with Financial Review and Comptrollers Branches will come under an Assistant Deputy Minister — Finance.

Under this arrangement, the Director of the Personnel Branch, the Legal Adviser, the Security Adviser and the Departmental Secretary will report directly to the Deputy Minister. As of December 31, 1966, the Department had 2,668 employees.

Supply Program

During 1966, the Canadian Government Supply Service (CGSS) made progress in developing the organizational structure, management plans and operating systems required for the consolidation of civil government supply activities. These important preliminary activities will permit the Canadian Government Supply Service to gradually assume responsibility for the supply activities now being carried out individually by numerous departments and agencies across the country.

During the year, the Supply Service was re-organized to achieve a separation of regional operations from the support and functional activities of the headquarters elements. Among the principal features of the re-organization were:

The Assistant Deputy Minister — Supply was provided with two new elements to assist him in managing the CGSS.

(1) A Director-General Operations to be responsible for regional operations.

(2) A Director-General Technical Services to be responsible for the support activities and functional direction required by the CGSS and for providing specified technical support to other elements of the Department.

Director-General Operations

In 1966, the Director-General Operations organization was established, with the primary mission of directing all aspects of CGSS regional operations and ensuring the effectiveness and efficiency of:

the *Equipment Management Branch*, which includes the Canadian Government Repair Service and its seven repair offices from Vancouver to Halifax;

the *Regional Purchasing Branch*, which consists of a headquarters component, thirteen regional purchasing offices in Canada and overseas offices at London, Paris and Koblenz;

the *CGSS Warehouses in Toronto and Montreal*, and the *No. 1 Supply Centre, Capital Region*.

Equipment Management and the Canadian Government Repair Service

The Equipment Management Branch was established in June 1966 to conduct research and develop policies for the life cycle management of non-military machines, equipment and other products used by the government. During the year, programs for motor vehicle fleet management and the life cycle management of office machines, equipment and furniture were introduced.

The Canadian Government Repair Service, a division of the Equipment Management Branch, provides maintenance, repair and overhaul services, and the technical evaluation of office machines and equipment for federal government activities in Canada.

Regional Purchasing

During 1966, regional purchasing offices placed a total of 146,291 contractual documents, valued at \$100 million.

The integration of civil purchasing, which began in 1964, continued in 1966 with the Regional Purchasing Branch accepting responsibility for a wide variety of materials and services to meet the local needs of the Departments of National Health and Welfare, Veterans Affairs, Indian Affairs and Northern Development (National Parks and Historic Sites), the National Art Gallery, the Public Archives, the National Library, the National Museum and the offices of the Chief Electoral Officer. This assumption of field purchasing responsibility has necessitated, in some instances, the transfer of personnel who have now been integrated into the appropriate regional offices.

The Branch continued to provide purchasing services to the Canadian Corporation for the World Exhibition through a special component established for this purpose as an adjunct to the Montreal office. Purchases totalling approximately \$10 million were made by the Branch during 1966 on behalf of Expo '67.

No. 1 Supply Centre—Capital Region

The No. 1 Supply Centre completed its first full year of operations in 1966 and is now supplying a wide range of commercial products and services to government departments and agencies.

During the year, 170,000 supply requisitions were received, and over \$12.5 million in goods were furnished to government users. Inventory levels were reduced by \$400,000 during the year, with the total inventory at December 31, 1966 amounting to \$1.9 million. Substantial transportation savings were also realized through improved organization and the consolidation of both inbound and outbound shipments.

Traffic Management

During 1966, the Traffic Management Branch was involved in an analysis of the transportation component of contracts, rate negotiation, control of routing and the audit of freight accounts. The Branch has been responsible for the development of a new master insurance policy which covers household effects in transit for members of the armed forces and government personnel.

Hotel reservation services to meet the requirements of all government departments in Montreal during Expo '67 have been established. On behalf of the Canadian Commercial Corporation, the Branch managed the shipment of over 300,000 tons of materials with a valuation of \$45 million for foreign governments and aid programs.

Cataloguing

The Cataloguing Branch during 1966 converted all the stock items managed by the CGSS to the NATO cataloguing system. This was a major step in the introduction of a national uniform supply language leading to a fully integrated automated supply system. In addition a wide range of items, which were included in the purchasing and supply consolidation program, were codified and listed in interim catalogues.

Standards and Specifications

During 1966, the manufacturing criteria for Canada's national flag was prepared by the Specifications Branch on the basis of technical specifications developed by the Department of National Defence.

As a result of increased national concern on the subject of motor vehicle safety, a broadly representative committee was established under the auspices of the Canadian Government Specifications Board to develop a set of standards. The Committee was composed of representatives from several federal government departments, all of the Provinces, the Canadian Federation of Mayors and Municipalities, the motor vehicle manufacturing industry, national and provincial safety associations as well as a number of other interested organizations.

As a result of meetings held during June and October, 1966, the Committee successfully developed a set of 27 motor vehicle safety standards. In addition, the Committee has issued a "Guide to Traffic Safety" which deals with the human factor, the vehicle and the environment as they relate to highway safety.

Quality Management

The Branch reviewed the quality characteristics and testing procedures called for in specifications and standards and engaged in quality control activities for the CGSS and in support of the Department's purchasing program.

Supply Management

The Supply Management Branch was formed in December 1966 from elements of the Warehousing and Distribution Branch and General Services Branch.

In concert with the Department of National Defence, systems development work is proceeding towards the definition and establishment of a supply system which will accommodate the requirements of the Department of National Defence and civil agencies of the government.

Emergency Supply

The Emergency Supply Planning Branch, which reports to the Assistant Deputy Minister of Finance, is responsible for the peacetime planning that would be required for the introduction of a War Supplies Agency following a nuclear attack.

Such an agency, brought into existence at the outbreak of such a war, would control production, distribution and pricing of supplies for civil and military use, other than certain aspects which remain the responsibility of the Departments of Agriculture and Fisheries respectively.

The plan evolved by the Branch has several parts, — an organization for a War Supplies Agency, an inventory of stocks of survival items and the drafting of those legal instruments necessary to permit effective control of commodities and production facilities following a nuclear attack.

Purchasing Program

During 1966, the total net value of all prime contracts negotiated by the Department of Defence Production was \$1,030.8 million, an increase of more than \$317.4 million over the previous year's operations.

Contracts for the Department of National Defence at \$710.8 million in 1966 represented an increase of 50% over the 1965 figure of \$473.5 million. Of the total net value of all contracts issued, defence contracts represented 69 per cent in 1966 as compared with 66.3 per cent in 1965.

Table 1 — Net Value of Contracts

Sources for which Contracts Issued	1963	1964	1965	1966
	\$000	\$000	\$000	\$000
Department of National Defence.....	522,277	497,158	473,534	710,838
Department of Defence Production				
Votes in Support of Defence Industry.....	11,330*	9,565*	1,463	8,156
Federal Civil Departments and Agencies.....	1,543	26,171	56,610	90,365
Canadian External Aid.....	11,646	13,075	19,650	35,421
Foreign Governments.....	135,172	112,417	162,157	186,068
TOTAL.....	\$ 681,968	\$ 658,386	\$ 713,414	\$1,030,848

*Includes contracts to sustain technological capability in defence industry later transferred from DDP Vote 20 to DOI Vote 5.

Prime defence contracts placed in Canada on behalf of foreign governments through Canadian Government agencies totaled \$186 million, an increase of \$23.9 million from the 1965 figure. Of the total value of contracts placed for foreign governments, the largest portion represented contracting undertaken on behalf of the United States Government.

Table 2 — Expenditures Against Contracts

Sources Paying The Contracts	1963	1964	1965	1966
	\$000	\$000	\$000	\$000
Department of National Defence.....	524,780	546,232	462,732	483,657
Department of Defence Production				
Votes in Support of Defence Industry.....	16,776†	10,489†	1,656	4,882
Federal Civil Departments and Agencies.....	3,325	25,052†	42,773†	86,762†
Canadian External Aid.....	21,079	15,520	13,826	36,027
Foreign Governments.....	189,288	158,762	107,847	148,850
TOTAL.....	\$755,248	\$756,055	\$628,834	\$760,177

†Includes expenditures against contracts referred to in footnote following Table I.

‡Expenditures against federal civil departments and agencies are estimated.

Contracts issued against this Department's Votes to assist in the modernization of Canada's defence industry had a net value of \$8.1 million compared to the figure of \$1.4 million issued in 1965.

Contracts placed on behalf of federal civil departments and agencies were valued at \$90.3 million, an increase of over \$35 million from the 1965 figure of \$54.6 million.

Contracts placed for External Aid Programs rose by 80 per cent from \$19.6 million in 1965 to \$35.4 million in 1966.

Shipbuilding

Operational Support Ships

Following the process of competitive tenders, Saint John Dry Dock Limited, Saint John, N.B., emerged as the successful bidder for the supply of two operational support ships for the Royal Canadian Navy valued at a total of \$49.1 million, the largest ship building order ever placed in Canada. The addition of the *Protecteur* and the *Preserver* will greatly enhance the Navy's anti submarine warfare capability by enabling Canadian warships to remain "on task" for considerably longer periods of time than is now possible.

St. Laurent Class Modernization Program — 7 Ships

The modernization and refit of the first 6 vessels of the St. Laurent class, the *St. Laurent*, *Assiniboine*, *Ottawa*, *Saguenay*, *Skeena* and *Margaree* has been completed. Work on the last vessel HMCS *Fraser* began in 1965 and was completed during the latter part of 1966. Work on HMCS *Skeena*, HMCS *Margaree* and HMCS *Fraser* was carried on as a result of competitive tenders and the estimated cost of the modernization work for these three ships is \$8.2 million while the refit portion totals \$2.5 million.

Restigouche Class Modernization Program — 7 Ships

The total estimated value of this program has been set at \$61.5 million, and work on the first vessel of this class, HMCS *Terra Nova*, is expected to be completed during the early part of 1967

Oberon Class Submarines

Three Oberon class submarines are being purchased from Great Britain at a total cost of \$37.5 million. The first vessel, the *Ojibwa*, was delivered to the Royal Canadian Navy in September, 1965. The second submarine, the *Onondaga*, is scheduled for delivery in May 1967, and it is anticipated that the third will be delivered to Canada in 1968.

Research Vessels

During the first half of 1967, four research vessels will be delivered to the Department of Energy, Mines and Resources. These ships are designed for hydrographic, oceanographic and limnographic research work in international, Canadian Coastal and Great Lakes waters.

Aerospace

During 1966, the Department issued contracts in the aerospace field valued at \$361 million, compared with \$225.5 million for the previous year. Of the 1966 amount, \$282.5 million was for Canadian Forces aircraft, aerospace equipment and services. A total of 679 repair and overhaul contracts with amendments, valued at almost \$50 million, were placed. These were distributed among 52 Canadian, 6 British and 3 American facilities. The production of 190 CT114 Tutor Primary Training aircraft for the Royal Canadian Air Force was completed during the year.

CF-5 Aircraft

License, reconfiguration and technical assistance agreements were negotiated by the Department with the Northrop Corp. for the manufacture of the F5-CF5 aircraft, and the General Electric Company for the J85-15 engines. Contract arrangements were also made with Canadair for a total of 115 aircraft, while orders were placed with Orenda for 292 of the engines. Delivery of the first aircraft is scheduled for 1967, and the total program is expected to cost an estimated \$215 million. In 1966, the management of this major acquisition was transferred to the Project Management Branch.

Black Brant

During the latter part of 1966, the Black Brant Rocket Development Program produced two highly successful flights. Test firing of the remaining family of three Upper Atmospheric Vehicles is continuing, and the DDP Revolving Fund is being used to establish an inventory stock pile of Black Brant Rockets. This measure is designed to foster off-the-shelf export sales. In addition to this, the development of a Meteorological Rocket System by Canada and the United States on a shared basis has progressed, and contracts were issued to cover additional exploratory research as part of a four year program.

Surveillance Drone

The Federal Republic of Germany joined the original partners, Canada and Britain, during the year in the development of the Canadian designed Short Range Surveillance Drone. Military evaluation trials of this \$30 million project have been reviewed by the three armies involved and it is anticipated that production of the Drone will commence early in 1967.

Turbine Engines

During the year, production of the successful Canadian designed PT-6 turbine engine at United Aircraft Canada Ltd., continued to grow with a production rate of 100 engines per month earmarked for 1967. Contract arrangements are being made for the U.S. Army to acquire approximately 220 engines together with spares and technical support.

Armament and Vehicles

Negotiations were completed during the year for substantial sales of anti-submarine projectiles to Great Britain and the Netherlands. In the same period, capital assistance was furnished to several Canadian manufacturers for ammunition components under the Defence Industry Modernization Program.

A variety of research and development projects were also undertaken for the Canadian Armed Forces and a Canadian designed launcher for a U.S. Missile System has resulted in an initial contract for the Canadian developer. A fluid state control sub-system for missiles, the XM 571 military personnel carrier, as well as the development of light weight binoculars are among a variety of projects which have benefitted from research and development work to date. Modifications to a

Canadian built torpedo provided it with an improved capability in shallow water, and this development has resulted in substantial foreign sales.

During the same period, major contracts were placed on behalf of the Department of National Defence to a value of \$25.3 million for a wide variety of vehicles including aircraft towing tractors, the 155 mm. self-propelled howitzers, as well as refueling trucks and snow removal vehicles. At the same time, there was a substantial increase in both the volume and value of vehicles and stores procured for civilian use due to the progressive take-over of the buying function from other departments and agencies.

Electrical and Electronics

During 1966, the Electrical and Electronics Branch effected considerable progress in the consolidation and improvement of communication requirements of the Department of National Defence. The introduction of new communications equipment, such as the Ultra High Frequency hand-held transceivers, has achieved success as has the Canadian developed Tactical Radio Relay Equipment and Multiplexers. Orders have been received from several of the NATO Nations.

The Alouette/ISIS Satellite Program continues on schedule, and the third satellite in the series is expected to be completed in August 1967. During the year a major sonar production program was awarded to Canadian industry, and the production of sonobuoys to support anti-submarine aircraft warfare was continued at a high level. Canada has established a technical lead for this type of sonar, as well as the techniques used in radio ionospheric sounding equipment.

International Programs

The Department's international responsibilities and functions include the management and administrative support of the Canadian Commercial Corporation, the establishment of co-operative defence industrial research, and development and production arrangements with Canada's allies. These activities are directed through the medium of an International Programs Branch supported by a group of specialist personnel located in the United States, Britain, France, Germany and in the Canadian Delegation to the North Atlantic Council. During 1966 these services were augmented by the addition of an officer located in Rome, Italy.

Canadian Commercial Corporation

The operations of the Canadian Commercial Corporation are closely integrated with those of the Department, however, it retains its corporate identity under its President who serves also as the Director of the Department's International Programs Branch.

During 1966 the total dollar value of business received by the Corporation from other governments, international agencies and Departments of the Government of Canada amounted to \$210 million, representing an increase of almost \$16 million over the previous year

Defence Equipment Development Program

This program, which is designed to assist in maintaining the defence industrial base in Canada, was established in 1959. Besides sustaining and advancing technology, the program supports, on a cost-sharing basis, the development of defence equipment to meet the requirements of other allied governments. Funds for this program are administered by the Department of Industry which is also responsible for the initiation of specific development projects in conjunction with the Department of Defence Production.

Defence Industrial Modernization Program

Established in 1964, this program also provides assistance to the Canadian defence industry to meet the competitive demands placed upon it by modern manufacturing technology, new materials, closer tolerances and higher reliability. It is also designed to foster the establishment of qualified Canadian sources of advanced components and materials. This latter feature was added during 1966 by consolidation with the former Strategic Components Sourcing Program.

With this assistance Canadian defence industry has acquired and put to use modern numerically controlled machining centres, electronic beam welders, chemical milling machines and other advanced machinery and equipment. The resulting increased productivity has led to significant gains in sales of Canadian designed defence equipment abroad.

To date 133 projects have been initiated with a total value of \$38.4 million and 90 of these having a combined value of \$29.6 million were approved during 1966.

Canada-United States Defence Production Sharing Program

Established in 1959, this program is designed to permit the most economical and efficient utilization of the North American defence industrial base. The program provides for reciprocal procurement of items of mutual defence interest on a balanced basis between both countries. A wide range of defence items are covered by the program but off-the-shelf general supplies, construction, basic raw materials, fuels and lubricants, and special services are excluded.

United States contracts placed in Canada under the program during the year were valued at \$317.1 million. The total value of United States procurement in Canada since the inception of the program amounts to \$1,491.3 million. Canadian defence purchases from the United States under the program during 1966 reached \$332.6 million with the total value of Canadian procurement since the start of the program amounting to \$1,314.2 million. The cumulative balance in Canada's favour at the end of 1966 was \$177.1 million.

CANADA - U.S. DEFENCE PRODUCTION SHARING PROGRAM (1962 - 1966)

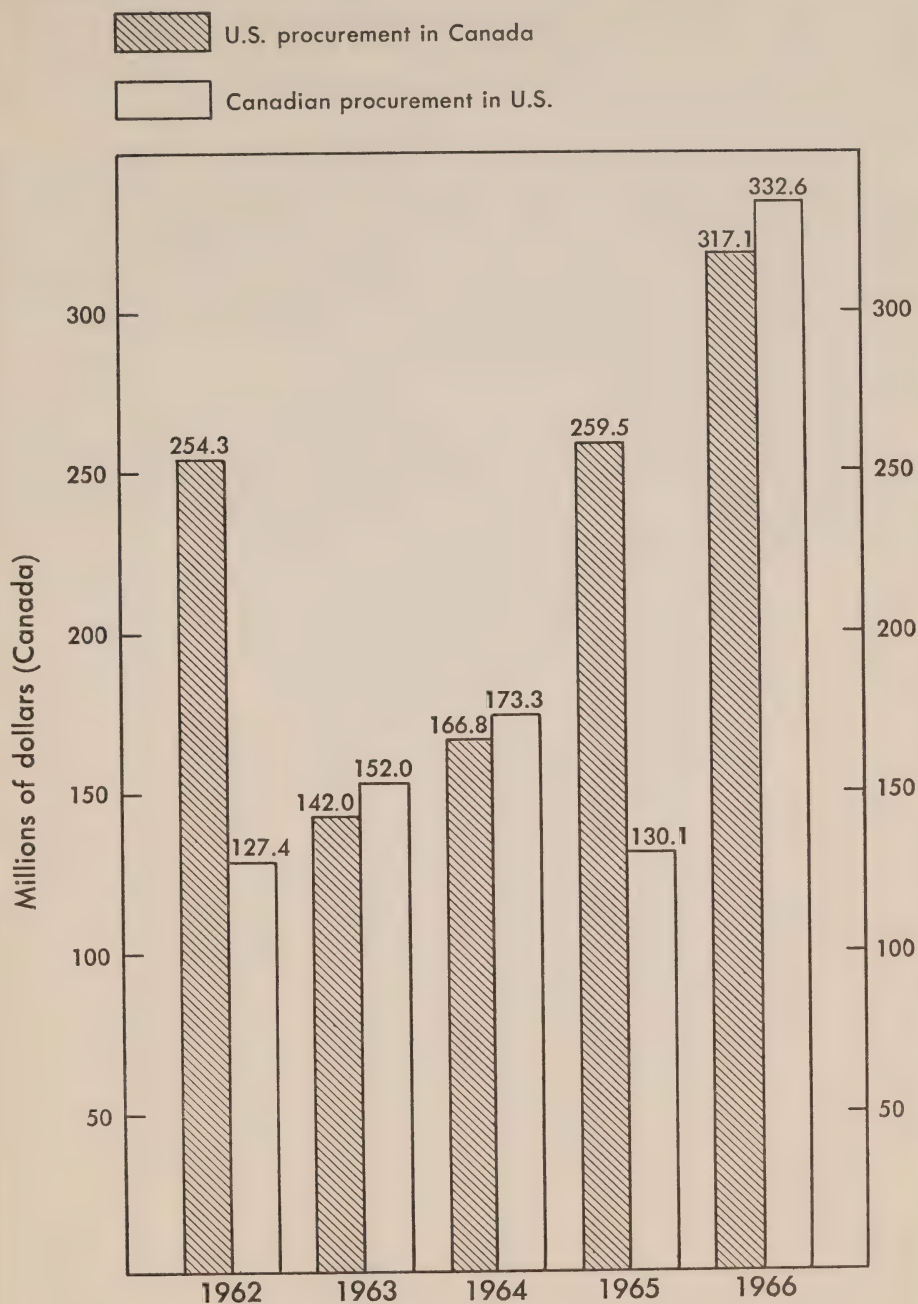


CHART 1

Overseas Programs

During 1966, the Department continued its efforts to establish co-operative defence development and production programs with Canada's NATO partners and other friendly countries. By a variety of communication methods, including briefings, missions and industrial tours the special technological skills of Canadian defence industries were brought to the attention of these countries as a basis for possible collaborative program.

Contracts placed in Canada during 1966 by or on behalf of overseas defence agencies for military requirements, totalled \$78.3 million in value representing an increase of \$10.6 million over 1965. In the same period Canadian purchases of defence supplies from overseas countries totalled \$30.1 millions. Over seventy Canadian firms have participated in exporting to some 40 countries, excluding the United States. Significant among these exports were sales of Canadian training and transport aircraft and communications equipment.

NATO Infrastructure

The efforts of the Department to encourage Canadian Industry participation in the NATO common infrastructure program resulted during the year in some limited initial success. Contracts awarded in 1966 to Canadian firms in open competition amounted to approximately one-half million dollars.

CANADA - OVERSEAS DEFENCE TRADE (1962 - 1966)

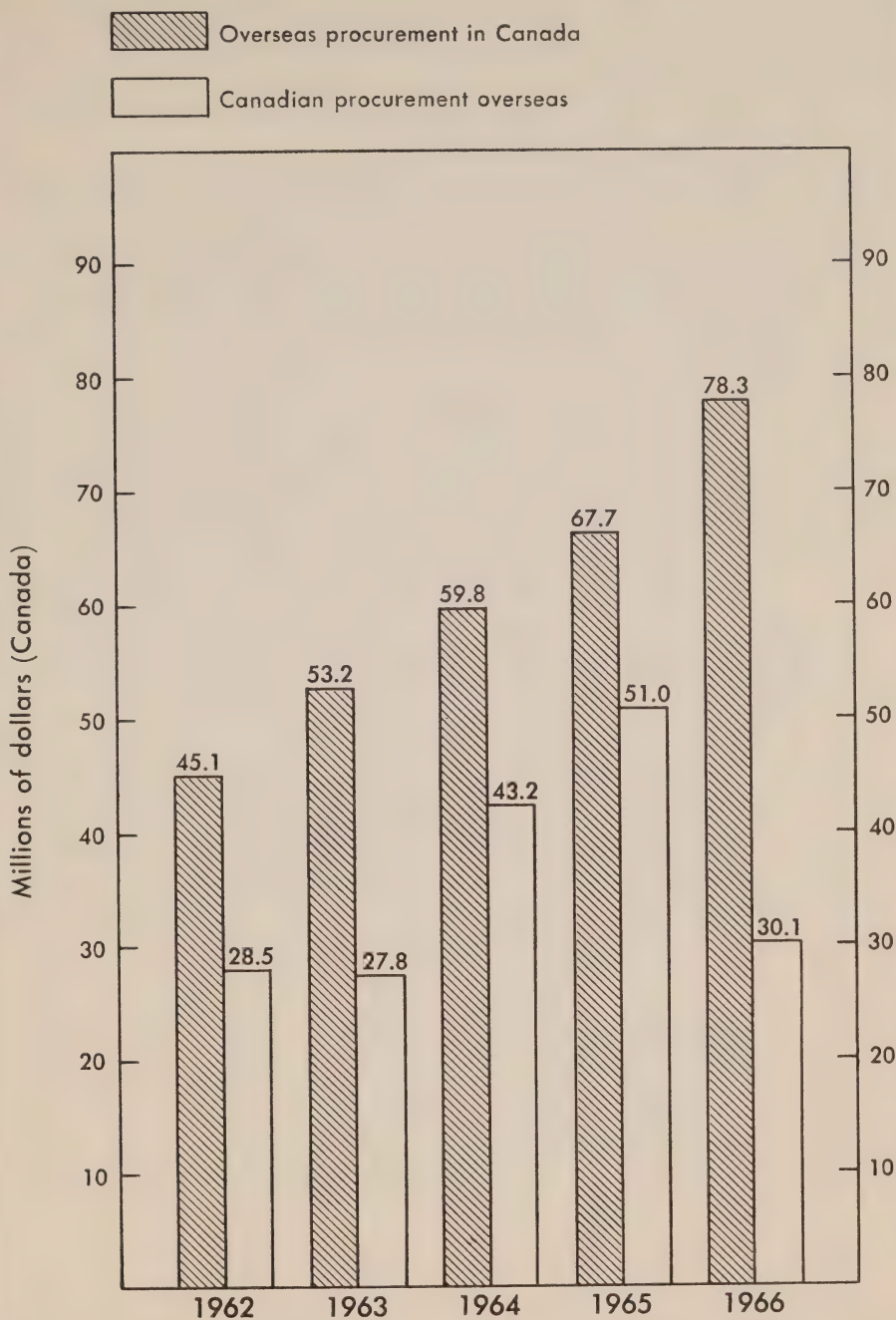


CHART 2

Project Management

During 1966, a study of defence acquisition, methods and techniques indicated the need to update the Department's management of major defence procurement projects. Accordingly, it was decided to initiate a program of single office project management wherein a single officer would be assigned authority and responsibility for the successful management of all aspects of the implementation phase of an individual procurement project.

Within the concept of Project Management, there are two general classes of projects:

- (a) Major defence acquisitions being undertaken for the Department of National Defence where the interdepartmental Project Manager is responsible for management of all the related activities within the two departments.

An example of this class of project is:

The DDH 280 and Class Destroyers. These are destroyer escorts equipped to carry two anti-submarine helicopters. They are unique in that gas turbine engines will be used for both the main generating machinery and also for propulsion of the ships. Contracts have been awarded for the propulsion and generating machinery, and tenders for ship construction are expected to be issued during 1967.

- (b) Projects for the development and production of new defence systems to meet the requirements of other countries are also managed by the Branch.

An example of this class of project is:

Periscope. This system will be used by units in the forward battle area for surveillance and target acquisition. The Federal Republic of Germany has demonstrated an active interest in the project.

Both of the foregoing projects were transferred during 1966 to the Project Management Branch from the operational branches where they were previously located.

Ottawa, March 6, 1967.

The Honourable C. M. Drury,
Minister of Industry,
Ottawa.

Sir,

I have examined the Balance Sheet of the Department of Defence Production and the Statement of Trading Operations of the Defence Production Revolving Fund for the year ended March 31, 1966.

The general account section of the Balance Sheet includes capital and other assets, acquired through the medium of parliamentary appropriations, for which the Department is accountable. In accordance with established government practice, these assets are carried at cost and no provision is made for known diminution in value of the clothing and footwear or for depreciation of the capital assets.

Included with the Revolving Fund Accounts receivable are non-interest bearing advances of \$2,774,490 to manufacturers to assist them in the acquisition of capital equipment under the Defence Industry Modernization Program. As section 16(2) (c) of the Defence Production Act, R.S., c. 62, expressly prohibits the making of loans to assist in the acquisition of capital equipment, it is my view, that these advances have been made without authority.

Raw quartz is included in the Inventories of strategic materials at cost, \$6,083,017 and its realizable value has been estimated at \$3,083,017. Recent sales have been at prices averaging 22% of original cost, thus indicating that the realizable value may be only about \$1,338,000.

The Revolving Fund included an accumulated surplus of \$2,286,292 at March 31, 1966. In our reports for each of the last two years we have expressed the opinion that this surplus should have been transferred from the Revolving Fund as revenue. This opinion is now supported by the Standing Committee on Public Accounts which in its Tenth Report presented to the House of Commons on February 7, 1967 recommends that the surplus in the Revolving Fund be transferred annually from that Fund as budgetary revenue.

I now report that, in my opinion, subject to the foregoing, the accompanying Balance Sheet, Exhibit I, and the Statement of Trading Operations, Exhibit II, of the Defence Production Revolving Fund present fairly the financial position of the Department as at March 31, 1966 and the results of the trading operations of the Fund for the year ended on that date, in accordance with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

Yours faithfully,

A. M. HENDERSON,
Auditor General of Canada.

Balance Sheet as at March 31, 1966

(with comparative figures as at March 31, 1965)

ASSETS	LIABILITIES AND GOVERNMENT EQUITY		
	1966	1965	1966
GENERAL ACCOUNT			
Deposits with Receiver General.....	\$ 2,533,363	\$ 455,306	Accounts payable and other liabilities... \$ 2,626,842
Imprest funds.....	12,445	6,352	Equity of Government of Canada, Appendix 1..... 176,192,937
Accounts receivable.....	\$ 666,517	501,248	
Deduct: Uncollectible accounts.....	258,991	258,991	
Loans and advances to employees.....	407,526	242,257	
Receivable under agreements of sale of land, buildings and equipment.....	22,443	19,692	
Loan to the Township of Toronto.....	2,402,534	4,130,983	
Working capital advances —	168,382	193,656	
Defence Production Revolving Fund..	22,589,633	—	
Canadian Commercial Corporation...	5,500,000	3,500,000	
Canadian Arsenals Limited.....	5,000,000	7,500,000	
Queen's Printer's advance.....	3,715,578	—	
Inventory of clothing, footwear, etc., at cost.....	36,805,211	11,000,000	
Investments in Crown Corporations, at cost —	7,898,298	4,913,690	
Capital Stock: (Note 1)			
Polymer Corporation Limited.....	30,000,000	30,000,000	
Defence Construction (1951) Limited	—	30	
Canadian Arsenals Limited.....	30	30	
Land, buildings, machinery and equipment, at cost, including rehabilitation and installation costs (Note 2),	30,000,030	30,000,060	
	105,314,694	125,738,105	
	<u>\$185,564,926</u>	<u>\$176,700,101</u>	<u>\$185,564,926</u>
			<u>\$176,700,101</u>

Accounts receivable.....	\$ 20,653,454	\$ 14,740,837	Accounts payable and deferred liabilities	\$ 4,804,017	\$ 2,890,075
Progress payments and advances to suppliers.....	9,046,427	43,717,413	Progress payments from customers.....	8,574,844	32,620,849
Working capital advances.....	330,000	330,000	Equity of Government of Canada — Working capital advance, as provided by Section 16 of the Defence Production Act (authorized \$100,000,000),..	\$22,589,633	30,157,245
Inventories of strategic materials, etc., at cost (estimated realizable value \$4,037,489).....	\$ 7,036,306	8,224,439	Surplus:		
Inventory shortage, cobalt, at cost (Note 3).....	1,188,599	1,190,765	Balance at April 1/65.....	1,818,444	1,255,779
		9,415,204	Add: Net income per Statement of Trading Operations.....	467,848	562,665
			Balance at March 31, 1966, Appendix II.....	2,286,292	1,818,444
			Advances for the purchase and storage of strategic materials authorized by parliamentary appropriations prior to the inception of the Department.....	24,875,925	31,975,689
					716,840
					32,692,529
					68,203,454
					38,254,786
					68,203,454

The appended notes form an integral part of this statement.

Approved on behalf of the Department.

G. W. HUNTER
Deputy Minister

N. R. MacLEAN
Comptroller

A. M. HENDERSON
Auditor General of Canada

I have examined the above Balance Sheet and the related Statement of Trading Operations of the Defence Production Revolving Fund and have reported thereon under date of March 6, 1967, to the Minister of Industry.

Notes to the Financial Statements at March 31, 1966

1. In addition to its investment in Polymer Corporation Limited the Crown has an equity of \$66,244,626 at December 31, 1966 in the retained earnings of Polymer Corporation Limited and its subsidiaries, an increase of \$5,802,623 in the year ended on that date.

The investment in Canadian Arsenals Limited is carried at \$30.00, the cost of the Capital Stock which is also the value of the equity in Canadian Arsenals Limited.

2. In addition to the fixed assets shown on the Balance Sheet, the Department is responsible for production tooling, dies and jigs costing \$179,604,132, located in warehouses and contractors' plants, title to which is vested in the Crown.

3. An inventory of 343,552 lbs. of refined cobalt was certified as being on hand in the custodian's warehouse at March 31, 1965, however, a shortage of 314,816 lbs., costing \$1,188,599 (net realizable value \$601,299) was discovered in May 1965 and is still under investigation. Partial recovery in the amount of \$46,223 has subsequently been made.

Defence Production Revolving Fund
Statement of Trading Operations
for the year ended March 31, 1966
(with comparative figures for the year ended March 31, 1965)

	1966	1965
Sales at cost —		
Aircraft and components.....	\$ 50,853,624	\$ 93,091,984
Research and development.....	15,933,246	13,048,450
Munitions and propellants.....	2,939,593	1,878,591
Shipbuilding components.....	17,630	(171,042)
Sonobuoys.....	—	75,000
	<u>\$ 69,744,093</u>	<u>\$107,922,983</u>
Strategic materials —		
Sales.....	\$ 57,929	\$ 34,424
Cost of Sales.....	54,124	34,034
Gross profit.....	3,805	390
Interest earned on —		
Agreements of sale of aircraft.....	\$453,039	551,372
Working capital advances for the operation of Crown-owned plant.....	<u>19,745</u>	<u>14,434</u>
	472,784	565,806
	<u>476,589</u>	<u>566,196</u>
Deduct: Warehousing and other expenses — strategic materials....	8,741	3,531
Net income.....	<u>\$ 467,848</u>	<u>\$ 562,665</u>

Summary of changes in Equity of Government of Canada Account for the year ended March 31, 1966

Balance at April 1, 1965.....		\$176,192,937
Add:		
Adjustment to record working capital advances —		
Defence Production Revolving Fund.....	\$ 22,589,633	
Queen's Printer's advance.....	3,715,578	
	<hr/>	26,305,211
Transfer of assets from other departments and agencies of the Government of Canada, and from other govern- ments.....	3,666,545	
Assets acquired from appropriations.....	396,469	
Canadian Commercial Corporation — Excess of income over expense for the year ended March 31, 1966.....	185,859	30,554,084
	<hr/>	<hr/>
		206,747,021
Deduct:		
Transfer of surplus assets to Crown Assets Disposal Cor- poration.....	19,416,258	
Transfer* of assets to other government departments and agencies	1,563,667	
Decrease in the working capital advances to Crown Cor- porations.....	500,000	
Collections under agreements of sale of land, buildings, equipment, etc., transferred to revenue.....	1,806,298	
Assets written off.....	481,093	
Sundry.....	41,621	23,808,937
	<hr/>	<hr/>
Balance at March 31, 1966.....		<hr/> <hr/> \$182,938,084

Defence Production Revolving Fund
Analysis of accumulated surplus
as at March 31, 1966

(with comparative figures as at March 31, 1965)

	1966	1965
Interest earned on —		
Agreements of sale of aircraft.....	\$1,564,304	\$1,111,265
Working capital advance for the operation of Crown-owned plant.....	34,181	14,434
	<hr/> \$1,598,485	<hr/> 1,125,699
Profit on strategic materials sold.....	467,643	463,839
Deduct: Warehousing and other expenses.....	120,730	111,988
	<hr/> 346,913	<hr/> 351,851
Profit on cloth and wool sold — operations completed....	340,894	340,894
Surplus as at March 31, 1966.....	<hr/> <hr/> \$2,286,292	<hr/> <hr/> \$1,818,444

Statement of Expenditures for the year ended March 31, 1966

(with comparative figures for the year ended March 31, 1965)

	1966	1965
Vote 1 Departmental Administration (including 1966 transfers of \$484,667 from Dept. of Transport and \$510,769 from Dept. of Public Works)		
Salaries.....	\$ 15,467,364	\$ 13,013,286
Living allowances.....	259,383	253,795
Travelling and removal expenses.....	498,351	430,014
Office stationery, supplies and equipment.....	668,128	480,460
Repairs to office equipment and acquisition of spare parts	517,401	435,907
Telephones and telegrams.....	335,727	286,675
Professional and special services.....	322,108	192,152
Postage.....	74,961	74,692
Freight, express and cartage.....	159,549	148,777
Rental of buildings and works.....	38,256	25,292
Publication of departmental reports and other material....	83,281	16,234
Materials and supplies.....	24,795	8,846
Acquisition or construction of equipment.....	43,858	16,464
Repairs and upkeep of equipment.....	10,463	8,874
Sundries.....	59,242	37,677
Care, maintenance and custody of standby defence plants, etc.....	88,113	583,180
Grants to municipalities in lieu of taxes.....	207,526	227,172
	<hr/> 18,858,506	<hr/> 16,239,497
Vote 5 Establishment of production capacity and for capital assistance		
Capital Account		
Equipment.....	—	326
Accountable advances to contractors.....	185,990	75,398
Current Account		
Defence Industry modernization.....	2,440,000	474,282
Establishment of production capacity.....	—	100,000
	<hr/> 2,625,990	<hr/> 650,006
Vote 10 Establishment of qualified sources for production of component parts and materials		
Current Account.....	229,729	439,209
Vote 15 Directorate of Printing		
Administration.....	—	565,642
Plant equipment and replacements.....	—	335,777
		<hr/> 901,419
Vote 40 Canadian Arsenals Limited		
Administration and operation.....	1,494,945	4,476,620

	1966	1965
Vote 45 Canadian Arsenals Limited		
Construction and improvement	\$ —	\$ 3,603
Equipment.....	181,317	115,125
Vote 11E Reimbursement of the Queen's Printer's Advance Account for value of stores which have become obsolete or unserviceable	44,476	—
Statutory — Gratuities to families of deceased personnel.....	930	1,990
Statutory — Exchequer Court awards.....	2,290	—
	<u>23,438,183</u>	<u>22,827,469</u>

NOTE: The total 1964-65 expenditure which was shown on the 1965 Annual Report of the Department at \$24,146,395 has been reduced by \$1,318,926 to \$22,827,469 in order to reflect, for comparative purposes, the following activities transferred to and from other Departments during the current year:

Vote 35 Defence Construction (1951) Limited		
To Department of National Defence.....	—	\$2,200,166
Vote 1 Purchasing and stores personnel		
From Department of Transport.....	\$ 428,451	—
Department of Public Works.....	452,789	881,240
	<u> </u>	<u>1,318,926</u>

Vote 15 Directorate of Printing — expenses (\$901,419 in 1964-65) for the current and future years form part of the cost of printing and stationery of user Departments for 1965-66.

Statement of Revenue for the year ended March 31, 1966

(with comparative figures for the year ended March 31, 1965)

	1966	1965
Non-Tax Revenue		
Return on investments.....	\$ 5,537,596	\$ 5,593,577
Proceeds from sales.....	7,439,153	9,865,343
Services and service fees.....	223,168	143,480
Refunds of previous years' expenditure.....	25,735	14,032
Miscellaneous.....	77,075	27,035
	<u>13,302,727</u>	<u>15,643,467</u>

Senior Departmental Personnel

Minister

The Honourable C. M. Drury, P.C., C.B.E., D.S.O., Q.C., M.P.

Executive Assistant to the Minister T. Porteous

Deputy Minister

G. W. Hunter

Assistant Deputy Minister, Supply	W. H. Huck
Assistant Deputy Minister, Operations	D. B. Mundy
Assistant Deputy Minister, Finance	R. M. Keith
Assistant Deputy Minister, Purchasing	J. S. Glassford
Departmental Secretary	W. J. Mulock
Director, Personnel Branch	H. R. Kotlarsky
Legal Adviser	C. S. Stevenson
Security Adviser	L. C. Cragg

Supply — Canadian Government Supply Service

Director-General, Operations	R. C. D. Laughton
Director, Regional Purchasing Branch	H. G. Hunt
Director, Equipment Management Branch	K. P. Ellis
Director, No. 1 Supply Centre Branch	R. A. Murray
Director, Traffic Management Branch	J. G. Whyte
Director, Cataloguing Branch	C. E. Adams
Director, Specifications & Standards Branch	D. Wolochow
Director, Supply Management Branch	H. H. Floyd
Director, Quality Management Branch	C. L. Muir

Purchasing — Canadian Government Purchasing Service

Director, Aerospace Branch	W. W. Reid
Director, Electrical & Electronics Branch	S. I. Comach
Director, Shipbuilding Branch	W. J. Corrigan
Acting Director, Armament & Vehicles Branch	J. R. Brisson
Director, General Purchasing Branch	D. M. Erskine

Operations

Director, International Programs Branch	A. D. Belyea
Director, Project Management Branch	R. M. Trites

Finance

Director, Planning & Control Branch	A. R. Bailey
Director-General, Contracts	J. W. Long
Acting Director, Emergency Supply Planning Group	C. O. Gervais
Director, Contract Administration Branch	J. J. Tevlin
Comptroller	N. R. MacLean

Canadian Government Printing Bureau

General Manager	C. B. Watt
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Regional Purchasing Offices

CANADA

ST. JOHN'S, NFLD.	Room 401, Main Post Office Building, Water Street, P.O. Box 487.
HALIFAX, N.S.	Second Floor, Sir John Thompson Building, Barrington Street, P.O. Box 1655.
SAINT JOHN, N.B.	Room 408, Sadim Building, Canterbury and Duke Streets.
QUEBEC 2, QUE.	Gare Maritime Champlain, Chemin des Foulons.
MONTREAL 2, QUE.	685 Cathcart Street.
OTTAWA, ONT.	1010 Somerset Street West.
TORONTO 1, ONT.	Room 1214, Mackenzie Building, 36 Adelaide Street East.
LONDON, ONT.	388 Dundas Street, P.O. Box 2275 — Terminal "A".
WINNIPEG 2, MAN.	Room 326, 344 Edmonton Street.
REGINA, SASK.	Room 302, New Post Office Building, Cornwall and S. Railway Streets.
CALGARY, ALTA.	Room 725, Public Building, 8th Avenue and 1st Street East.
EDMONTON, ALTA.	Room 309, Federal Building, 107th Street and 99th Ave.
VANCOUVER, B.C.	Harry Stevens Building, 125E, 10th Avenue.
VICTORIA, B.C.	Room 318, Canada Customs House, 816 Government Street.

OVERSEAS

LONDON, ENGLAND	Canadian Department of Defence Production, 1 Grosvenor Square, London W.1., England.
PARIS, FRANCE	Canadian Department of Defence Production, 1, rue Chanez, Paris 16e, France.
KOBLENZ, GERMANY	Canadian Department of Defence Production, 54 Koblenz-Pfaffendorf, Emserstrasse 21, Germany.

Foreign Field Offices

INTERNATIONAL PROGRAMS BRANCH

- LONDON, W.1., ENGLAND** Canadian Department of Defence Production,
Macdonald House,
No. 1 Grosvenor Square.
- PARIS 8E, FRANCE** Department of Defence Production,
Ambassade du Canada,
35 Avenue Montaigne.
- PARIS 16E, FRANCE** Department of Defence Production,
Canadian Delegation to the North
Atlantic Council,
OTAN-NATO,
Port Dauphine.
- BONN, GERMANY** Department of Defence Production,
c/o Canadian Embassy,
Zitelmannstrasse 22,
Bonn, Germany.
- ROME, ITALY** Department of Defence Production,
Ambasciata del Canada,
Via G.B. de Rossi 27,
Rome, Italy.
- WASHINGTON, D.C., U.S.A.** Canadian Joint Staff Bldg.,
2450 Massachusetts Ave.,
P.O. Box 4897,
Cleveland Park Station,
Washington 8, D.C., U.S.A.
- BOSTON, MASS., U.S.A.** Canadian Department of Defence Production,
c/o L. G. Hanscom Field,
Bedford, Mass. 01731, U.S.A.
- DAYTON, OHIO, U.S.A.** MCL/DDP,
Wright — Patterson Air Force Base,
Dayton, Ohio 45433, U.S.A.
- DETROIT, MICH., U.S.A.** Canadian Department of Defence Production,
c/o Michigan Army Missile Plant,
38111 Van Dyke Ave.,
Warren, Mich., 48090, U.S.A.
- LOS ANGELES, CALIF., U.S.A.** Canadian Department of Defence Production,
Defence Contract Administration,
Services District,
55 South Grand Ave.,
Pasadena, Calif., 91109, U.S.A.

PHILADELPHIA, PA., U.S.A. Canadian Department of Defence Production,
US Army Electronics Support,
Command/Det A,
ATTN: SELSC/P-CD
225 South Eighteenth,
Philadelphia, Pa., 19103, U.S.A.

ST. LOUIS, Mo., U.S.A. Canadian Department of Defence Production,
AVCOM,
P.O. Box 209, Main Street,
St. Louis, Mo., 63166, U.S.A.

Crown Companies Associated with the Department of Defence Production

Canadian Arsenals Limited

President	J. R. Brisson
Vice-President	G. W. Hunter

Canadian Commercial Corporation

President	A. D. Belyea
Secretary and Legal Adviser	C. S. Stevenson
Comptroller	N. R. MacLean

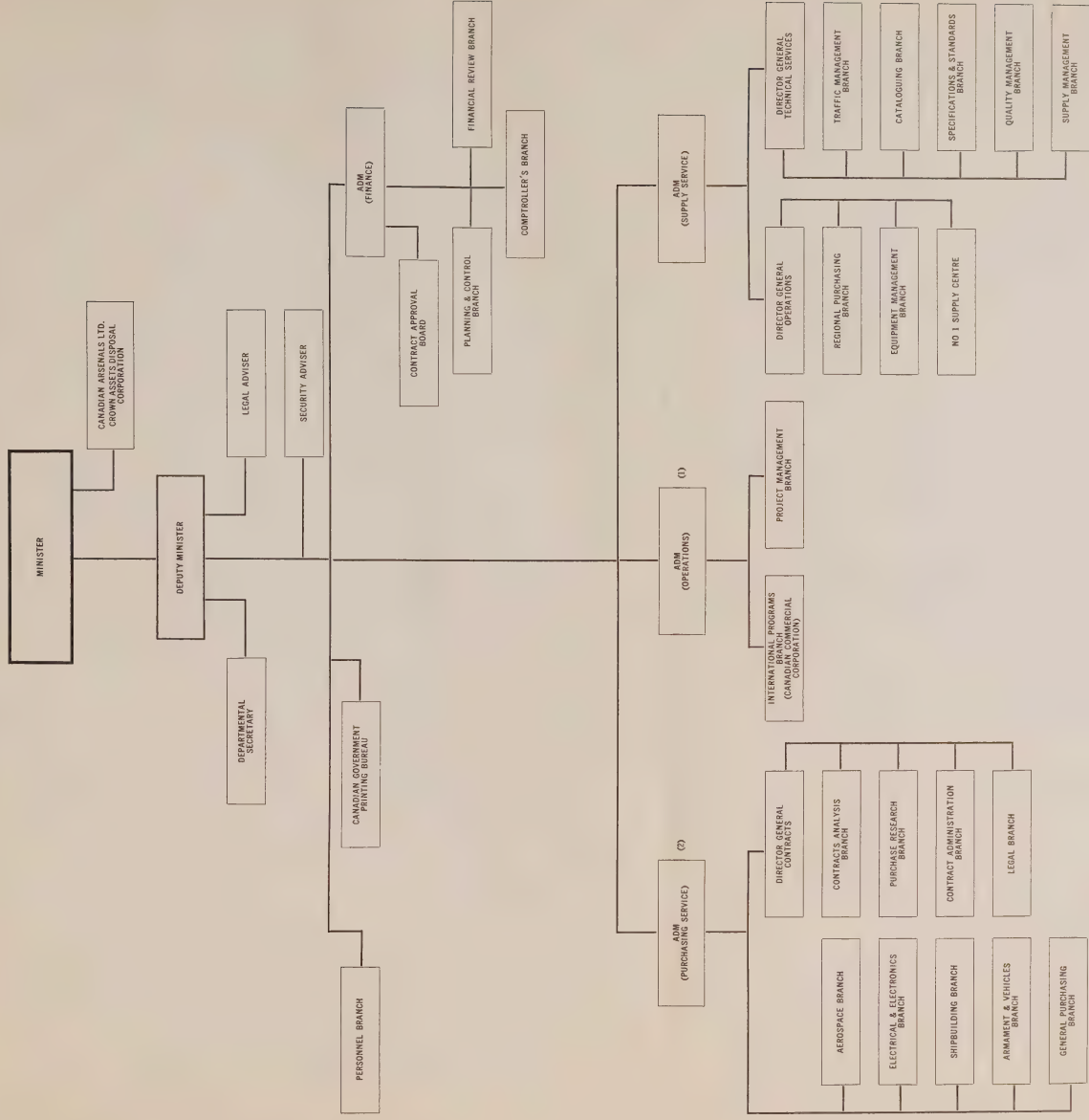
Crown Assets Disposal Corporation

President & General Manager	Louis Richard
Vice-President	G. W. Hunter
Assistant General Manager	I. M. Mackinnon
Secretary and Legal Counsel	R. LaPrairie

Polymer Corporation Limited

President and Managing Director	E. R. Rowzee
Vice-President	E. J. Buckler
Vice-President	L. D. Dougan
Vice-President	R. E. Hatch
Vice-President	I. C. Rush
Vice-President	S. Wilk
Treasurer	G. Bracewell
Secretary and Chief Legal Officer	W. J. Dyke

DEPARTMENT OF DEFENCE PRODUCTION



Notes:

- (1) Incumbent of this position holds the equivalent position in the Department of Industry.
- (2) To be established in 1967.





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Dept. of Manpower & Immig.

OCT 7 1968



DEPARTMENT OF DEFENCE PRODUCTION

CANADA

1967 ANNUAL REPORT

SEVENTEENTH REPORT

of the

DEPARTMENT

of

DEFENCE PRODUCTION

1967

Hon. C. M. DRURY, P.C., C.B.E., D.S.O., Q.C., M.P., *Minister*
G. W. HUNTER, *Deputy Minister*



ROGER DUHAMEL, F.R.S.C.
QUEEN'S PRINTER AND CONTROLLER OF STATIONERY
OTTAWA, 1968

*To His Excellency The Right Honourable Roland Michener, C.C.,
Governor General and Commander-in-Chief of Canada.*

March 25, 1968.

MAY IT PLEASE YOUR EXCELLENCY:

I have the honour to submit to your Excellency the Report of the Department of Defence Production for the calendar year 1967.

A summary of the operations and services rendered by this Department, under their respective headings, is laid before your Excellency.

Respectfully submitted,

A handwritten signature in dark ink, consisting of a series of loops and a long, sweeping horizontal stroke that ends in a vertical line.

Minister of Defence Production.

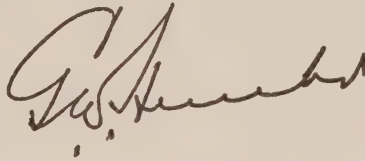
*The Honourable C. M. Drury, P.C., C.B.E., D.S.O., Q.C., M.P.,
Minister of Defence Production,
Ottawa, Ontario.*

March 25, 1968.

Dear Sir:

I have the honour to submit the Report of the Department of Defence Production, which covers the operations and services rendered during the calendar year 1967.

Yours faithfully,

A handwritten signature in dark ink, appearing to be 'G. Sturges', written in a cursive style.

Deputy Minister.

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1967 Departmental Highlights

- Purchasing responsibilities of eighteen departments have now been transferred to Defence Production. Contracts for External Aid placed in 1967 worth \$29 million.
- Procurements successfully completed for the ten Expo theme pavilions, confederation train and caravans, and historical uniforms for the Armed Forces Military Tattoo.
- Canadian Government Purchasing Service contracts and contract amendments valued at \$1,096,575,000.
- 9,000 contracts worth \$34 million were processed by the Expo Regional Office over a three year period.
- Production commitments for Canada's Surveillance Drone secured from the Federal Republic of Germany and Great Britain.
- Negotiations completed for 105 NF-5 aircraft to be supplied to the Royal Netherlands Air Force.
- Regional purchasing offices at home or abroad placed 156,000 contracts totalling \$128.5 million, a 30% increase over 1966.
- \$3 million in contracts for Dominion Coal Board's modernization of Cape Breton Collieries awarded.

Role of the Department

The original role of the Department of Defence Production, which was established in 1951 under the provisions of the Defence Production Act, encompassed both procurement and the organization, mobilization and conservation of the resources of Canada to meet current and prospective needs of the defence program. This role has altered significantly since that time.

In 1963 the Department was designated as the central purchasing agency for the Federal Government as a whole to serve all departments, both civil and military, and was also directed to enter the area of civil supply. More recently, certain responsibilities related to the defence industry base have been transferred to the Department of Industry.

The main role of the Department therefore, has now, in line with the Government's intent, become that of a common service agency in the purchasing and supply area as reflected by the creation within the Department of the Canadian Government Purchasing Service and the Canadian Government Supply Service.

In addition to the common service role, the Department carries responsibilities in the area of international trade of military equipment. In view of the increasingly higher costs of developing and producing modern military equipment, NATO allies and other friendly countries have generally adopted a policy of co-operation in weapon development replacing earlier unilateral endeavours. Such bilateral and multilateral arrangements are primarily intended to replace the waste of duplication with the real savings of co-operation. The Department of Defence Production, in its efforts to ensure that the Canadian Armed Forces is provided with the most modern equipment at the least cost, has sought to take advantage of co-operative arrangements with allied countries through selective participation in major defence development and production programs.

In its present role, the Department is also responsible for undertaking measures to encourage the development and production in Canada of defence equipment to meet the needs of allied and other friendly countries. This is being done in order to offset the effect on our balance of international payments resulting from substantial purchases of defence equipment abroad for our Armed Forces and to maintain an industrial defence base in Canada at an adequate and competitive level of technological sophistication.

These measures include defence industrial research, development, procurement, and production sharing with the United States and other members of NATO, and with other friendly countries. They also include the purchasing in Canada of goods and services required by foreign governments under a variety of international agreements.

The Minister in his capacity as Minister of Defence Production also reports to Parliament for the following Crown corporations: Canadian Commercial Corporation, Canadian Arsenals Limited, Crown Assets Disposal Corporation and the Polymer Corporation Limited. Each of these organizations issues its own annual report as does the Canadian Government Printing Bureau, which reports to the Minister through the Deputy Minister of Defence Production.

Material Management Program

During 1967 the Canadian Government Supply Service (CGSS) further developed material management techniques and systems for the consolidation of specific commodities for government departments and agencies.

Supply Planning and Control

The Supply Planning and Control Branch, under the direction of the Assistant Deputy Minister (Supply) is responsible for planning and implementing a supply system for all civil government departments and, in conjunction with the Department of National Defence and the Canadian Government Purchasing Service, for developing an integrated federal purchasing and supply system.

Director-General Operations

The Director-General Operations is responsible for the Regional Purchasing Branch, the CGSS Repair Division and No. 1 Supply Centre. During 1967 the organization continued to develop and improve field facilities to cope with the expanding responsibilities of the Canadian Government Supply Service. The volume of activity progressively increased in the areas of regional purchasing, warehousing and repair.

Regional Purchasing

Regional Purchasing offices are located across Canada and at London, England and Koblenz, Germany. A total of 155,883 contractual documents with an aggregate value of approximately \$128.5 million were placed during 1967, an increase of some 30 per cent over 1966. During the same period CGSS regional purchasing offices provided regional procurement services to meet the local needs of the Department of National Defence and 18 civil departments and agencies. This service was expanded during the year to include the Departments of Trade and Commerce, Fisheries, National Revenue, Labour and Justice, as well as the Dominion Bureau of Statistics.

The Expo '67 component of the Montreal regional purchasing office placed 9,000 contracts with a total value of \$34,201,300 from the time of its inception in 1964 until it closed in December, 1967. More than \$20 million of these purchases were made in 1967.

No. 1 Supply Centre—Capital Region

The No. 1 Supply Centre issued a total of 628,869 line items to government departments and agencies during the year. These articles had a valuation of approximately \$14 million and the activity represents an increase of 26 per cent over 1966 in the number of line item transactions.

Warehousing service was provided to the Centennial Commission for the temporary storage and movement of supplies required to discharge its role in Canada's Centennial celebrations. During the year the Supply Centre completed

a major re-warehousing of all bulk stores operated for the Queen's Publisher. In addition, a stocktaking involving approximately 54,000 items was undertaken as a means of improving the management and accounting of these stocks.

CGSS Repair

The CGSS Repair Division performs technical evaluation, maintenance and repair and overhaul on office equipment, machines and office furniture used by the Federal Government. This involves providing maintenance for approximately 150,000 pieces of office equipment valued at \$50 million, and the repair, where required, of a wide range of furniture worth over \$40 million.

Service operations are conducted from seven regional repair offices located across Canada and, during the year, 145,500 items of equipment received attention. Of this number some 42,000 items were serviced by commercial vendors for a total contractual value of \$560,000. Contracts totalling \$132,000 were placed with industry for the repair of conventional office furniture and other items such as Post Office security safes, air circulating fans, indexing equipment and filing cabinets.

Cataloguing

The Cataloguing Branch, during 1967, continued with its program to identify and catalogue stock items in a number of departments in preparation for purchasing and supply consolidation. During the year, 10,000 purchase descriptions were produced and distributed in support of purchasing activities. A total of 21 catalogues embracing a wide range of items were printed and distributed. Codification assistance was provided to Canadian manufacturers holding NATO contracts for defence materiel.

Quality Management

This branch carried out the quality management of furniture and stationery, the administration of the National Credit Card System for Government motor vehicles and provided technical advice on motor vehicle fleet operations to federal departments and agencies.

Special projects completed during the year included technical and economic studies, the co-ordination of an extensive user trial relating to the introduction of modular furniture into Government use, and the development of a plan for the management of the Government's fleet of motor vehicles.

Specifications and Standards

The Specifications and Standards Branch, which also serves as the Secretariat of the Canadian Government Specifications Board, issued 152 new and revised standards and 118 amendments to update existing standards during 1967. Included were provisional standards for modular shelving for lateral open shelf filing systems, standards for studded tires, an amendment to permit the use of particle board in the construction of office furniture, and a revision of the criteria for passenger car tubeless tires.

Work on motor vehicle safety continued and two new standards were issued. The Branch also contributed to the development of Federal Government policy concerning *mandatory* safety requirements as part of a general government responsibility for motor vehicle safety.

Supply Management

The Branch took preliminary steps in the implementation of a commodity management concept by appointing a Commodity Manager—Furniture, who initially will co-ordinate the introduction of modular furniture and steel shelf filing and who will ensure the compatibility of conventional government furniture standards with current production practices.

The introduction of improved operating and inventory management systems resulted in an improved customer service which will enable the CGSS to continue with the consolidation of supply services for civil departments.

The Branch achieved considerable progress in the development of a modern materials handling system for No. 1 Supply Centre. Consumer stores and Production Assets, managed by the CGSS in Toronto and formerly separately located, were moved to a single site to enable more economic and effective management.

Data processing services were provided for all elements, in addition to carrying out stock control, accounting, and related functions for the CGSS.

Traffic Management

During 1967, the Traffic Management Branch was involved in the following major services for government departments and agencies:

- a. The Hotel Reservation Service that was set up to handle government requirements for hotel rooms in Montreal during Expo '67 booked a total of 19,879 hotel reservations.
- b. The Guaranteed Hotel Rate Program was expanded and reduced rates are now available for federal government employees travelling on official business at more than 500 hotels and motels throughout Canada and the United States.
- c. A Central Travel Service was developed to make carrier and hotel reservations and to provide tickets, itineraries and travel information for all civil departments located in the Ottawa area.
- d. The pilot project of a centralized freight audit system was established. Although it is in its initial stages, substantial financial recoveries from civilian transportation companies have already been realized.
- e. The analysis by the Traffic Audit Section of the transportation elements of contracts prior to award resulted in a considerable reduction in the overall cost of materiel for the Department and its customers.
- f. On behalf of the Canadian Commercial Corporation, the Branch managed the shipment of nearly 300,000 tons of materiel valued at more than \$41 million for foreign governments and for aid programs.

Regional Purchasing Offices

CANADA

ST. JOHN'S, NFLD.....	Room 408, Main Post Office Building, Water Street, P.O. Box 487.
HALIFAX, N.S.....	Second Floor, Sir John Thompson Building, Barrington Street, P.O. Box 1655.
SAINT JOHN, N.B.....	Room 408, Sadim Building, Canterbury and Duke Streets.
QUEBEC 2, QUE.....	Gare Maritime Champlain, Chemin des Foulons.
MONTREAL 18, QUE.....	1441 St. Urbain Street.
OTTAWA, ONT.....	1010 Somerset Street West.
TORONTO 1, ONT.....	Room 1214, Mackenzie Building, 36 Adelaide Street East.
LONDON, ONT.....	388 Dundas Street, P.O. Box 2275—Terminal "A"
WINNIPEG 2, MAN.....	Room 326, 344 Edmonton Street.
REGINA, SASK.....	Room 302, New Post Office Building, Cornwall and S. Railway Streets.
CALGARY, ALTA.....	Room 725, Public Building, 8th Avenue and 1st Street East.
EDMONTON, ALTA.....	Room 308, Federal Building, 107th Street and 99th Ave.
VANCOUVER, B.C.....	Harry Stevens Building, 125E, 10th Avenue.
VICTORIA, B.C.....	Room 318, Canada Customs House, 816 Government Street.

OVERSEAS

LONDON, ENGLAND.....	Canadian Department of Defence Production, 1 Grosvenor Square. London W.1., England.
KOBLENZ, GERMANY.....	Canadian Department of Defence Production, 5400 Koblenz/Germany, Postfach 566.

Canadian Government Purchasing Service

The Canadian Government Purchasing Service (CGPS), established in October 1967, groups together the purchasing and support branches that perform central buying for the Government. The Purchasing Branches (Aerospace, Electrical and Electronics, Armament and Vehicles, Shipbuilding and General Purchasing) report to the Assistant Deputy Minister (Purchasing), and the support branches (Contract Administration, Purchase Research, Contract Analysis and Legal) report to the Director General, Contracts.

The program for purchase consolidation, which started in 1965 as a result of recommendations of the Royal Commission on Government Organization, is well underway. The Department has now assumed buying responsibilities for 18 departments and agencies involving purchases representing nearly 50 per cent of the total annual civilian volume anticipated when the purchase consolidation program is completed in the early 1970's.

The increased and varied workload resulting from the purchase consolidation program and the simultaneous development of an integrated logistics system by the Armed Forces, has introduced a need to improve and modernize the purchasing procedures of the Department. A thorough study of the current purchasing operation was carried out by consultants during 1967 and a program for the introduction of improvements and modern data processing methods was started in the latter part of the year.

Contracting Activity

During 1967, contracts and contract amendments issued by the Purchasing Service, had a total value of \$1,096,575,000. Table 1 below shows the breakdown of this total value by source of requirement. Table 2 shows the expenditures against contracts.

Table 1—Net Value of Contracts

Sources for which Contracts Issued	1965	1966	1967
	\$000	\$000	\$000
Department of National Defence	473,534	710,838	595,124
Department of Defence Production Votes in Support of Defence Industry	1,463	8,156	6,970
Federal Civil Departments and Agencies	56,610	90,365	110,389
Canadian External Aid	19,650	35,421	29,025
Foreign Governments	162,157	186,068	355,067
TOTAL	\$ 713,414	\$1,030,848	\$1,096,575

The value of contracts issued against Department of Defence Production Votes in 1967 decreased due to the transfer of Vote 5, Defence Industry Modernization, to the Department of Industry on April 1, 1967.

Contracts issued in 1967 by the Regional Purchasing Offices of the Department had a total value of \$128,589,000 and are included in the above statistics.

Table 2—Expenditures Against Contracts

Sources Paying the Contracts	1965	1966	1967
	\$000	\$000	\$000
Department of National Defence	462,732	483,657	499,575
Department of Defence Production Votes in Support of Defence Industry	1,656	4,882	6,008
Federal Civil Departments and Agencies	42,773*	86,762*	106,904*
Canadian External Aid	13,826	36,027	37,669
Foreign Governments	107,847	148,850	185,553
TOTAL	\$ 628,834	\$ 760,177	\$ 835,709

*Expenditures against Federal Civil Departments and agencies are estimated.

Department of National Defence

Contracts issued on behalf of the Department of National Defence had a net value of \$595,124,000, which represents 54 per cent of the total net value of all contracts issued. This compares with 69 per cent in 1966.

Production continued at Canadair of the CF-5 aircraft for the Canadian Armed Forces. Delivery of the first aircraft, originally scheduled for late 1967, was made in February, 1968 with delivery of the 115 aircraft to be completed in late 1970. Contracts were issued during 1967 for avionics, armament and other government supplied equipment for installation in the CF-5. Four additional Lockheed C-130E aircraft were also ordered for delivery in 1968.

Deliveries of CHSS-2 helicopters to the Canadian Armed Forces continued during 1967 and is scheduled for completion in 1968. A contract was negotiated with Bell Aerospace for the supply of 10 CUH-1H helicopters with delivery to commence in 1968. Initial delivery of the 15 De Havilland of Canada CF-115 Buffalo Aircraft which were ordered has been made and the balance will be delivered during 1968.

About 200 contracts were issued for the repair and overhaul of aerospace equipment (aircraft, engines and accessories) and related services. These were distributed among 46 contractors in Canada, three in Great Britain, one in the United States, one in Germany and one in India.

Extensive procurement of communications equipment continued during the year and a major study of communication services and facilities of the Armed Forces was undertaken to provide a comprehensive plan for future improvements. Construction of the third Canadian satellite ISIS "A" is proceeding to meet the scheduled launching late in 1968.

Procurement continued for the supply of machinery and equipment to be fitted in the DDH 280 and class Destroyer Escorts. Contracts issued during the year included such items as the variable depth sonar, air conditioning, heating and

ventilating systems and naval guns. The second of three Oberon class submarines being purchased from Great Britain was delivered in 1967 and delivery of the third is scheduled for July 1968. Construction of the two operational support ships proceeded on schedule with delivery forecasted in June and November of 1969. These two ships will improve Canada's anti-submarine warfare capability by enabling warships to remain at sea for much longer periods.

An innovation in contracting for ship repairs in 1967 was the combining of two major refits at one shipyard at the same time, which resulted in significant cost savings.

A program to replace military jeeps was initiated with a Canadian manufacturer being awarded a contract for 800 vehicles.

Planning for the procurement of a new uniform for male personnel of the Armed Forces proceeded during the year and a production plan was developed. In addition, a design and development project for uniforms for female personnel was initiated. A request sent to 600 designers resulted in the submission of 33 designs for this uniform. Prototype uniforms and accessories were produced by the 9 selected designers and these are now under consideration.

Foreign Governments

Prime contracts for defence requirements issued on behalf of foreign governments totalled \$355 million.

Negotiations were completed for the production of 105 NF-5 aircraft for delivery to the Netherlands and contracts were awarded for much of the avionics and armament equipment for these aircraft. The NF-5 is a modified version of the CF-5 aircraft being purchased for the Canadian Armed Forces. Delivery to the Netherlands will begin early in 1969 and is expected to be completed in 1971.

Contracts were issued on behalf of various foreign governments for electronic equipment developed in Canada such as Tactical Radio Relay Equipment, Multiplexers, Doppler Navigation, and Crash Position Indicators.

A contract valued at approximately \$6 million was awarded for 46 XM-571 Dynatrac Vehicles, for delivery to the United States Army. This is a military personnel carrier, developed and manufactured in Canada.

A major contract in the shipbuilding area was received from the United States Navy for fabricated steel flight deck sections for the conversion of the aircraft carrier, the U.S.S. Midway. The initial contract was valued at \$3.3 million with additional work estimated at \$5 million to be negotiated.

Canada continued to supply anti-submarine projectiles to both Great Britain and the Netherlands. An order was received from Great Britain for the supply of Canadian designed anti-personnel mines.

Civil Departments and Agencies

Contracts issued on behalf of civil government departments and agencies, including the External Aid Office, had a net value of \$139,414,000 in 1967. This represented 12.7 per cent of the year's total contracting activity.

Contracts awarded on behalf of the External Aid Office totalled \$29,025,000 and covered a wide range of commodities such as various food items, printing equipment, polio vaccines, dump and tractor trailer trucks and custom designed mechanical/electrical installations.

Negotiations continued in connection with government advertising and this activity, combined with further consolidation of requirements, resulted in cost reductions of about \$200,000. Rates were negotiated for the provision of Commissionaire Services at government buildings across Canada at a total cost of over \$13 million.

Two Tidal and Current Survey Vessels and an Oceanographic Survey Vessel were delivered to the Department of Energy, Mines and Resources during 1967. A Limnographic Research Vessel is currently being constructed for delivery in mid-1968.

Contracts valued at about \$3 million were issued on behalf of the Dominion Coal Board and the Cape Breton Development Corporation for coal mining equipment to modernize the Cape Breton Collieries.

Motor vehicle procurement continued to increase with a total of almost \$5 million in 1967. The purchase of pharmaceuticals, laboratory and photographic supplies and equipment on behalf of civil departments totalled approximately \$6 million.

Other civilian requirements of interest purchased during the year included language laboratories and a new design of modular furniture and shelving for use in government offices.

Centennial Year

Contracting for Canada's Centennial celebrations constituted an important activity during 1967. Procurement was successfully completed for all of the displays for the EXPO '67 theme "Man and His World", which were contained in the ten theme pavilions. Contractual arrangements were made for leasing and operation of the Confederation Train and Caravans and the operation Heads of States Trains. Design assistance and procurement of equipment for the Confederation Train and Caravans was carried out and final deliveries of the many historical uniforms required for the Armed Forces Military Tattoo were made early in the year.

During the year contracts were awarded by the Department for such items as flags, trophies, medals, and fireworks displays.

International Programs

The International Programs Branch is responsible for the management and administration support of the Canadian Commercial Corporation, the overall market development and management with respect to foreign procurement of Canadian defence products and for the establishment of co-operative defence industrial research, development and production arrangements with Canada's allies. Support in these activities is furnished by specialists located in the United States, Great Britain, France, West Germany, Italy and by the Canadian Delegation to the North Atlantic Council. The administration of the programs for the defence industry modernization and defence equipment development was transferred to the Department of Industry during 1967.

Canadian Commercial Corporation

The operations of the Canadian Commercial Corporation are closely integrated with those of the Department of Defence Production. However, it retains its corporate identity under its President who serves also as the Director of the department's International Programs Branch.

During 1967, the total dollar value of business received by the Corporation from other governments, international agencies and departments of the Government of Canada amounted to \$305 million, representing an increase of approximately \$95 million over the previous year.

Canada-United States Defence Development and Production Sharing Program

Established in 1959, this program is designed to permit the most economical and efficient utilization of the North American defence industrial base. The program provides for the joint development and the reciprocal procurement of items of mutual defence interest on a balanced basis between both countries. A wide range of defence items are covered by the program, but excludes off-the-shelf general supplies, construction, basic raw material, fuels and lubricants, and special services.

United States contracts placed in Canada under the program during the year were valued at \$307.7 million. Canadian defence purchases from the United States under the program during 1967 reached \$293.8 million. The total value of the United States procurement in Canada since the inception of the program amounts to \$1798.9 million and the total of Canadian procurement in the United States since the start of the program amounts to \$1608.0 million. The cumulative balance in Canada's favour at the end of 1967 was \$190.9 million.

Overseas Programs

During 1967, the Department continued its efforts to establish co-operative defence development and production programs with Canada's NATO partners and other friendly countries. Through a series of briefings, missions and industrial tours the special technological skills of Canadian defence industries have

CANADA - U.S. DEFENCE PRODUCTION SHARING PROGRAM (1962-1967)

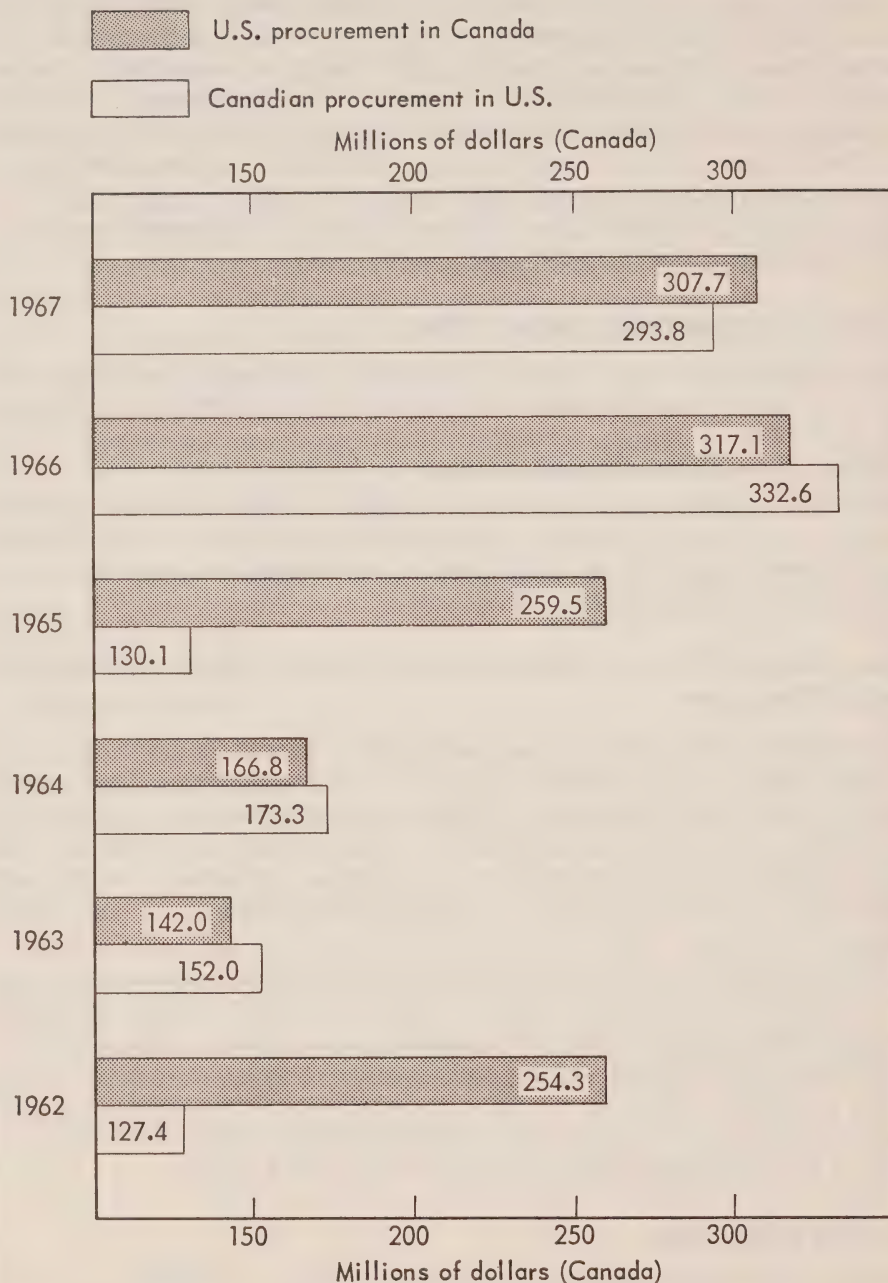


CHART 1

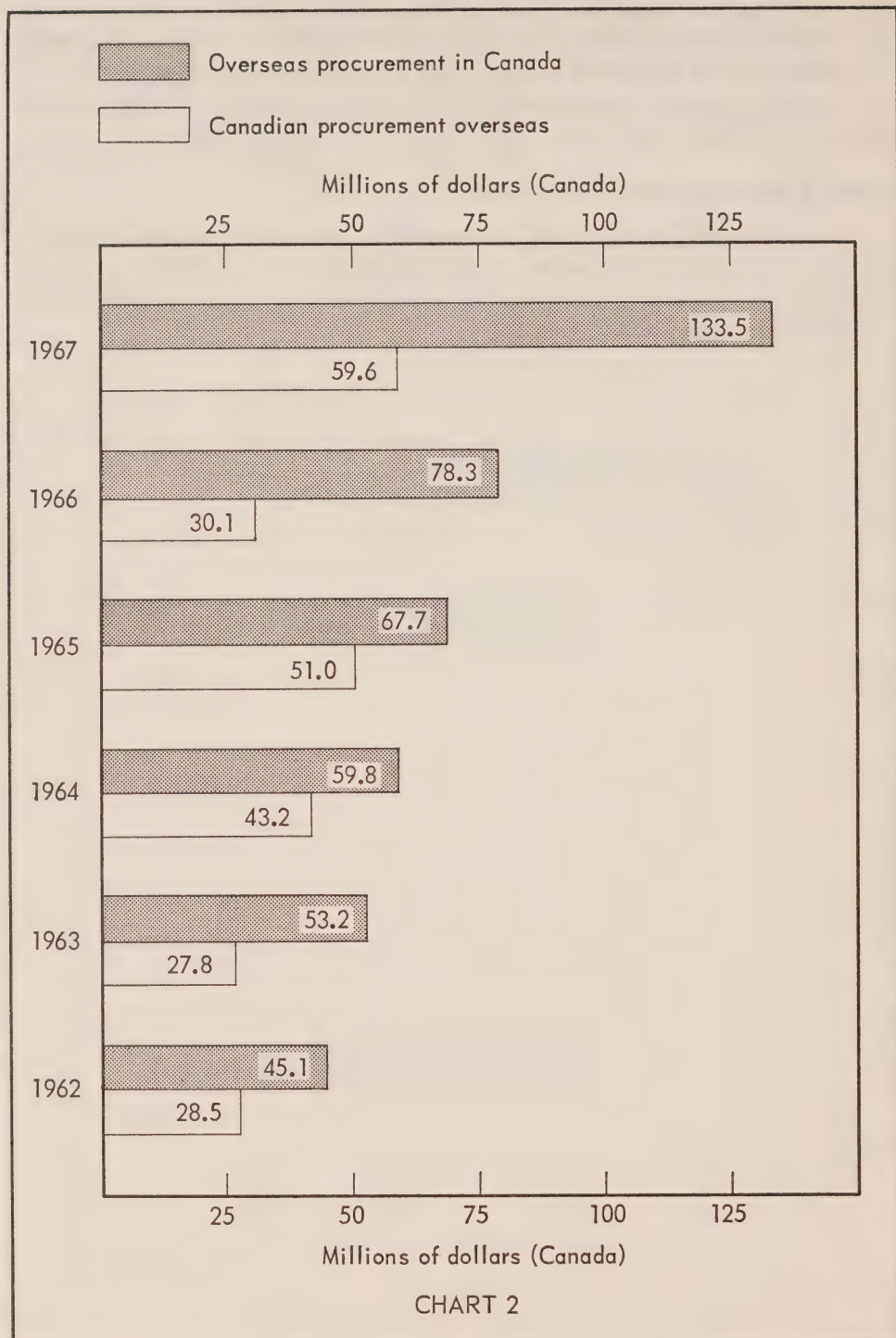
been brought to the attention of these countries as a basis for possible collaborative programs. The most significant result of these efforts was the conclusion of an agreement for a co-operative program with the Netherlands for the production of NF5 fighter aircraft in Canada for the Royal Netherlands Air Force.

Contracts placed in Canada during 1967 by or on behalf of overseas defence agencies for military requirements, totalled \$133.5 million in value.

NATO Infrastructure

The continued efforts of the Department to encourage Canadian industry participation in the NATO common infrastructure and other NATO programs resulted in the award of contracts valued at approximately twelve million dollars to Canadian firms in 1967.

CANADA – OVERSEAS DEFENCE TRADE (1962-1967)



Foreign Field Offices

INTERNATIONAL PROGRAMS BRANCH

LONDON, W.1., ENGLAND.....	Canadian Department of Defence Production, Macdonald House, No. 1 Grosvenor Square
PARIS 8EME, FRANCE.....	Department of Defence Production, Ambassade du Canada, 35 Avenue Montaigne.
BRUSSELS, BELGIUM.....	Department of Defence Production, Canadian Delegation to the North Atlantic Council, OTAN-NATO, Brussels 39.
BONN, GERMANY.....	Department of Defence Production, c/o Canadian Embassy, Zitelmannstrasse 22, Bonn, Germany.
ROME, ITALY.....	Department of Defence Production, Ambasciata del Canada, Via G.B. de Rossi 27, Rome, Italy.
WASHINGTON, D.C., U.S.A.....	Canadian Joint Staff Bldg., 2450 Massachusetts Ave., P.O. Box 4897, Cleveland Park Station, Washington, D.C. 20008, U.S.A.
BOSTON, MASS., U.S.A.....	Canadian Department of Defence Production, ESKZ, STOP #34 L. G. Hanscom Field, Bedford, Mass. 01731, U.S.A.
DAYTON, OHIO, U.S.A.....	MCL/DDP, Wright—Patterson Air Force Base, Ohio 45433, U.S.A.
DETROIT, MICH., U.S.A.....	Canadian Department of Defence Production, c/o Michigan Army Missile Plant, 38111 Van Dyke Ave., Warren, Mich., 48090, U.S.A.
LOS ANGELES, CALIF., U.S.A.....	Canadian Department of Defence Production, Defence Contract Administration, Services District, 125 South Grand Ave., Pasadena, Calif., 91109, U.S.A.
PHILADELPHIA, PA., U.S.A.....	Canadian Department of Defence Production, US Army Electronics Command, ATTN: SELSC/P-CD 225 South Eighteenth, Philadelphia, Pa., 19103, U.S.A.

Project Management

The Project Management Branch is responsible for the management of the procurement of major defence equipment and for the development and production of new defence systems to meet the requirements of Canada and allied countries. A system of single office project management is used wherein a single officer is assigned authority and responsibility for the successful management of all aspects of implementing an individual project.

During 1967, project management was applied to the following major programs:

DDH 280 and Class Destroyer Escorts to be built for the Canadian Armed Forces. The tenders for ship construction closed in December, 1967, and the proposals from the Canadian Shipbuilding Industry are under evaluation.

CF5/NF5 close support Aircraft being produced for the Royal Netherlands Air Force and the Canadian Armed Forces. A firm requirement for the production of 105 Aircraft was received from the Royal Netherlands Air Force in 1967.

The FHE 400 oceangoing Hydrofoil Ship. Following repair of the November 1966 fire damage, development is continuing and the ship launch is now scheduled for late 1968.

The Surveillance Drone System AN/USD501 where development and testing is nearing completion. Firm production commitments have been received from the Federal Republic of Germany, Great Britain and the Canadian Armed Forces.

Canadian Sea Sparrow Defence System for the DDH 280 and Class Destroyer Escorts and the Operational Support Ships. A contract has been awarded for the development, fabrication, installation and test of a prototype close range surface to air missile system.

The Meteorological Rocket project. Contracts have been placed for the exploratory development phase involving two simple, low cost, reliable rocket vehicles.

Sound Ranging project. Service testing of the equipment was conducted during 1967 and development of equipment to locate enemy artillery is continuing.

Work on the development of the OT 4 Gas Turbine engine and the Periscope unmanned elevated sensor system was discontinued during the year as it became evident that the basic objectives of these programs could not be achieved.

Ottawa, July 17, 1967.

The Honourable C. M. Drury,
Minister of Defence Production,
Ottawa.

Sir,

I have examined the Statement of Assets and Liabilities of the Department of Defence Production as at March 31, 1967 which includes capital and other assets acquired through the medium of parliamentary appropriations for which the Department is accountable. My examination included a general review of the accounting procedures and such tests of the accounting records and other supporting evidence as I considered necessary in the circumstances.

In accordance with established government practice, all assets are carried at cost, no provision having been made for known diminution in value of the clothing and footwear or for depreciation of the capital assets.

In my opinion, subject to the foregoing, the accompanying Statement of Assets and Liabilities presents fairly the financial position of the Department as at March 31, 1967 in accordance with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

Yours faithfully,

A. M. HENDERSON,
Auditor General of Canada.

Department of Defence Production

Statement of Assets and Liabilities, as at March 31, 1967 (with comparative figures as at March 31, 1966)

ASSETS	LIABILITIES AND GOVERNMENT EQUITY		
	1967	1966	1966
Deposits with Receiver General.....	\$ 492,886	\$ 2,533,363	
Imprest funds.....	15,248	12,445	\$ 2,626,842
Accounts receivable.....	159,866	210,812	182,938,084
Due from employees.....	36,487	22,443	
Receivable under long-term agree- ments.....	1,605,546	2,767,630	
Working capital advances—			
Defence Production Revolving Fund.....		22,589,633	
Canadian Commercial Corpo- ration.....		5,500,000	
Canadian Arsenals Limited.....		5,000,000	
Canadian Government Printing Bureau—			
Queen's Printer's Advance.....	1,415,022	3,715,578	
Canadian Government Supply Service.....	859,758	—	
Inventory of clothing, footwear, etc., at cost.....	51,292,880	36,805,211	
Investments in Crown Corporations, at cost (Note 1)—	11,976,428	7,898,298	
Capital Stock:			
Polymer Corporation Limited..	30,000,000	30,000,000	
Canadian Arsenals Limited.....	30	30	
Land, buildings, machinery and equipment, at cost, including re- habilitation and installation costs (Note 2).....	30,000,030	30,000,030	
	76,941,067	105,314,694	
	<u>\$172,520,438</u>	<u>\$185,564,926</u>	
		<u>\$172,520,438</u>	<u>\$185,564,926</u>

The appended notes are an integral part of this statement.
Approved on behalf of the Department

I have examined the above Statement of Assets and Liabilities and have reported thereon under date of July 17, 1967, to the Minister of Defence Production.

G. W. HUNTER
Deputy Minister

N. R. MacLEAN
Comptroller

A. M. HENDERSON
Auditor General of Canada

Department of Defence Production

Notes to the Statement of Assets and Liabilities at March 31, 1967

1. As the Minister of Defence Production is responsible for the operations of—
Polymer Corporation Limited,
Canadian Arsenals Limited
Crown Assets Disposal Corporation and
Canadian Commercial Corporation

the recorded investments of the Crown in these Corporations are reflected in the Accounts of the Department.

In addition to the recorded investments in these Corporations the Crown has equity, which has not been recorded in the Accounts

- of \$70,318,823 in the retained earnings of Polymer Corporation Limited and its subsidiaries at December 31, 1966, an increase of \$4,074,197 for the year ended on that date;
- of \$7,398,163 in Crown Assets Disposal Corporation at March 31, 1967, comprising \$100,000 in retained earnings in the General Account, and \$7,298,163 in the Agency Account relating mainly to accounts receivable under long-term interest-bearing sales agreements, an increase of \$2,275,293 for the year ended on that date; and
- of \$397,123 in Canadian Commercial Corporation at March 31, 1967 comprising \$173,752 unrealized profits on U.S. exchange and \$223,371 Reserve for Contingencies, an increase of \$33,969 for the year ended on that date.

2. In addition to the fixed assets shown on the Statement of Assets and Liabilities, the Department is responsible for production tooling, dies and jigs costing \$184,590,987 located in warehouses and contractors' plants, title to which is vested in the Crown.

3. A Crown-owned plant is presently being operated, on behalf of the Department, by a commercial company. The Crown's share of losses on operations to March 17, 1967, estimated to be \$100,000, is not reflected in this statement.

4. An action for the recovery of \$2 million from the Department of Defence Production for patent infringements has been filed with the Exchequer Court of Canada. Of this amount approximately \$1.6 million relates to purchases made by the Canadian Commercial Corporation on behalf of its customers. Departmental legal officers are of the opinion that the action can be successfully defended.

Department of Defence Production

Summary of changes in Equity of Government of Canada Account for the year ended March 31, 1967

Balance at April 1, 1966.....			\$182,938,084
Add:			
Increases in working capital advances.....	\$14,487,669		
Assets transferred from other departments and agencies of the Government of Canada.....	4,841,273		
Assets acquired from appropriations.....	582,052		
Sundry.....	56,931	19,967,925	
			<hr/> 202,906,009
Deduct:			
Surplus assets transferred to Crown Assets Disposal Corporation	28,764,390		
Assets transferred to other government departments and agencies	534,588		
Collections under long-term agreements.....	1,219,144		
Assets written off.....	363,393	30,881,515	
			<hr/>
Balance at March 31, 1967.....			<hr/> \$172,024,494

Ottawa, June 26, 1967.

The Honourable C. M. Drury,
Minister of Defence Production
Ottawa.

Sir,

I have examined the Balance Sheet of the Defence Production Revolving Fund as at March 31, 1967, and the Statements of Trading Operations and Deficit for the year ended on that date. My examination included a general review of the accounting procedures and such tests of the accounting records and other supporting evidence as I considered necessary in the circumstances.

Included in Accounts receivable are non-interest bearing advances of \$10,025,668 to manufacturers to assist them in the acquisition of capital equipment under the Defence Industry Modernization Program. As section 16(2)(c) of the Defence Production Act, R.S., c. 62, expressly prohibits the making of loans to assist in the acquisition of capital equipment, it is my view that these advances have been made without authority. Beginning April 1, 1967, all loans of this nature are being charged to Department of Industry Vote L 65 which has now been provided for this purpose.

I now report that, in my opinion, subject to the foregoing, the accompanying Balance Sheet and Statements of Trading Operations and Deficit present fairly the financial position of the Fund as at March 31, 1967 and the results of its Trading Operations for the year ended on that date, in accordance with generally accepted accounting principles applied on a basis consistent with that of the preceding year.

Yours faithfully,

A. M. HENDERSON,
Auditor General of Canada.

Defence Production Revolving Fund

Balance Sheet as at March 31, 1967 (with comparative figures as at March 31, 1966)

ASSETS	LIABILITIES AND GOVERNMENT EQUITY	
	1967	1966
Accounts receivable.....	\$ 24,557,777	\$20,653,454
Progress payments and advances to suppliers and other recoverable costs.....	12,545,488	9,046,427
Working capital advances.....	330,000	330,000
Inventories of strategic materials, etc., at cost including warehousing (Note 1).....	6,894,388	7,036,306
Inventory shortage, cobalt, at cost (Note 2).....	1,139,717	1,188,599
	<hr/> \$ 45,467,370	<hr/> \$ 38,254,786
	<hr/>	<hr/>
	<hr/>	<hr/>
Accounts payable and deferred liabilities.....	\$ 5,645,046	\$ 4,804,017
Progress payments and advances from customers....	5,812,980	8,574,844
Equity of the Government of Canada— Working capital advances as provided by section 16 of the Defence Production Act (authorized \$100,000,000).....	34,018,099	22,589,633
Deficit.....	8,755	(2,286,292)
	<hr/> 34,009,344	<hr/> 24,875,925
	<hr/>	<hr/>
	<hr/>	<hr/>
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The accompanying notes are an integral part of the financial statements.

Approved on behalf of the Department

G. W. HUNTER
Deputy Minister

N. R. MacLEAN
Comptroller

I have examined the above Balance Sheet and the related Statements of Trading Operations and Deficit and have reported thereon under date of June 26, 1967, to the Minister of Defence Production.

A. M. HENDERSON
Auditor General of Canada

Defence Production Revolving Fund
Notes to the Financial Statements at March 31, 1967

1. Prior to the current year, the costs of storing strategic materials had been charged to surplus. In 1967, prior and current charges for storage of materials still on hand were transferred from surplus and added to inventory acquisition costs.

A major part of the inventories consists of raw quartz which cost \$6,077,522 and for which there is no active market. The very few sales this year have been at prices averaging 22% of original cost. The remaining inventories costing \$816,866 have an estimated realizable value of \$767,929.

2. An inventory of 343,552 lbs. of refined cobalt was certified as being on hand in the custodian's warehouse at March 31, 1965. However, a shortage of 314,816 lbs., costing \$1,188,599 (estimated realizable value at March 31, 1965—\$557,224) was discovered in May 1965 and is still under investigation. As the result of court action \$48,882 has been recovered to date, and it is expected that there will be a further settlement. The balance of the cobalt was sold in the current year.

Defence Production Revolving Fund
Statement of Deficit for the year ended March 31,
1967

(with comparative figures for the year ended March 31, 1966)

	1967	1966
Balance, Surplus at April 1.....	\$2,286,292	\$ 1,818,444
Add: Net income.....	936,197	467,848
Warehousing costs applicable to inventories of strategic materials on hand April 1, 1966 (Note 1).....	44,512	—
	<u>3,267,001</u>	<u>2,286,292</u>
Less: Transfers to the Receiver General of Canada.....	3,275,756	—
Balance, Deficit at March 31.....	<u>\$ 8,755</u>	<u>\$(2,286,292)</u>
The deficit at March 31, 1967 is comprised of:		
Losses on disposal of strategic materials for which a parliamentary appropriation will be requested.....	\$77,286	
Balance of net income for the year payable to the Receiver General of Canada.....	68,531	
	<u>\$ 8,755</u>	

Defence Production Revolving Fund
Statement of Trading Operations
for the year ended March 31, 1967

(with comparative figures for the year ended March 31, 1966)

	1967	1966
Sales at cost—		
Aircraft and components.....	\$17,421,337	\$50,853,624
Research and development.....	11,242,393	15,933,246
Munitions and propellants.....	4,431,271	2,939,593
Shipbuilding components.....	—	17,630
	<u>\$33,095,001</u>	<u>\$69,744,093</u>
Interest earned on—		
Agreements of sale of aircraft.....	992,664	453,039
Working capital advances.....	19,800	19,745
	<u>1,012,464</u>	<u>472,784</u>
Losses on strategic materials (see below).....	76,267	4,936
Net income.....	<u>\$ 936,197</u>	<u>\$ 467,848</u>

Profits and Losses on Transactions in Strategic Materials on hand April 1, 1966

	Year ended March 31, 1967			Cumulative to March 31, 1967		
	Sales	Cost of Sales	Gross Profit (Losses)	Sales	Cost of Sales	Gross Profit (Losses)
Antimony.....	\$ 62,054	\$ 61,035	\$ 1,019	\$ 84,458	\$ 80,987	\$ 3,471
Hexachlorethane.....				5,032	4,130	902
Picrite.....				872,727	872,727	—
Activated Carbon.....				18,457	18,457	—
	<u>62,054</u>	<u>61,035</u>	<u>1,019</u>	<u>980,674</u>	<u>976,301</u>	<u>4,373</u>
Quartz.....	5,683	25,373	(19,690)	186,023	205,713	(19,690)
Cobalt.....	51,069	108,665	(57,596)	6,823,953	6,881,549	(57,596)
	<u>56,752</u>	<u>134,038</u>	<u>(77,286)</u>	<u>7,009,976</u>	<u>7,087,262</u>	<u>(77,286)</u>
	<u>\$118,806</u>	<u>\$195,073</u>	<u>\$(76,267)</u>	<u>\$7,990,650</u>	<u>\$8,063,563</u>	<u>\$(72,913)</u>

Ottawa, July 17, 1967.

The Honourable C. M. Drury,
Minister of Defence Production,
Ottawa.

Sir,

I have examined the Balance Sheet of the Canadian Government Supply Service Revolving Fund as at March 31, 1967, and the related Statement of Operations for the year then ended. My examination included a general review of the accounting procedures and such tests of the accounting records and other supporting evidence as I considered necessary in the circumstances.

On April 1, 1966, the operations of the Canadian Government Supply Service were transferred to a revolving fund established by Vote L18e, Appropriation Act No. 4, 1966, for the purpose of acquiring, managing, manufacturing, producing or otherwise dealing in stores or materials; to purchase and to supply repair services for office furniture and equipment; and for freight services, for federal government departments and agencies. The purposes of the Fund have been further extended by Vote L13g, Appropriation Act No. 2, 1967, to include the procurement of insurance coverage at bulk rates on the movement of household effects and the financing in 1966-67 and 1967-68 of the cost of hotel accommodation in Montreal during the period of the Canadian Universal and International Exhibition, 1967. These supply activities to a limited degree had been previously financed through the Queen's Printer's Advance which also financed the activities of the Canadian Government Printing Bureau. The equity of the Supply Service in the Queen's Printer's Advance Account as at April 1, 1966 was transferred to the revolving fund in the amount of \$1,907,831 including inventories of \$1,894,436 and work in process of \$1,454.

In my opinion, the accompanying Balance Sheet and Statement of Operations present fairly in accordance with generally accepted accounting principles, the financial position of the Canadian Government Supply Service Revolving Fund as at March 31, 1967, and the result of its operations for the year ended on that date.

A. M. HENDERSON
Auditor General of Canada.

Canadian Government Supply Service Revolving Fund

(Department of Defence Production)

(established by Vote L18e Appropriation Act No. 4, 1966 as amended)

Balance Sheet as at March 31, 1967

ASSETS

Accounts receivable	
Departments and agencies of the Government of Canada.....	\$ 1,161,887
Claims.....	56,625
	<hr/>
	1,218,512
Advances to suppliers.....	95,500
Inventories at standard cost—	
Stationery, paper and printing supplies.....	1,597,830
Office furniture and equipment.....	320,781
	<hr/>
	1,918,611
	<hr/>
	\$ 3,232,623
	<hr/>

LIABILITIES

Accounts payable and accrued charges.....	\$ 2,296,865
Advance from customer department.....	76,000
Equity of the Government of Canada	
Advances as authorized by Department of Defence Production	
Vote L18e, Appropriation Act No. 4, 1966, 1966-67, c.6.....	859,758
	<hr/>
	\$ 3,232,623
	<hr/>

The accompanying notes are an integral part of the financial statements.

Certified correct:

N. R. MacLEAN
Comptroller

Approved:

W. H. HUCK
for: *Deputy Minister, Department of Defence Production*

I have examined the above Balance Sheet and the related Statement of Operations and have reported thereon under date of July 17, 1967 to the Minister of Defence Production.

A. M. HENDERSON
Auditor General of Canada

**Canadian Government Supply Service Revolving Fund
(Department of Defence Production)**

Notes to the Financial Statements

1. Advances to suppliers comprise payments for:

(i) Insurance on removal of household effects belonging to public servants, members of the Armed Forces and the Royal Canadian Mounted Police.....	\$90,000
(ii) Reservation of hotel accommodation in Montreal during the 1967 World Exhibition for use by public servants.....	\$ 5,500

Advances are being liquidated as the services are provided to user departments.

2. The accounts payable include an estimated amount of \$75,000 for freight charges on furniture unbilled by the carriers at the year-end.

3. Accounts receivable and Equity of the Government of Canada include adjustments for collections of accounts receivable up to May 19, 1967 amounting to \$2,904,822 that are chargeable in the Accounts of Canada to the fiscal year 1966-67.

4. The cost of sales does not include the value of administration expense, light, power, telephone, heating, amortization of buildings and equipment, etc., provided free of charge by other government departments and through the medium of parliamentary appropriations for the Department of Defence Production.

Canadian Government Supply Service Revolving Fund

(Department of Defence Production)

(established by Vote L18e Appropriation Act No. 4, 1966 as amended)

Statement of Operations for the year ended March 31, 1967

	Commercial Printing	Stationery Paper and Printing Supplies	Office Furniture and Equipment	Total
Sales.....	\$ 5,781,347	\$ 7,120,205	\$ 3,626,481	\$16,528,033
Cost of sales				
Opening inventories.....	1,454	1,768,593	125,843	1,895,890
Purchase of materials.....	5,779,893	6,989,667	3,814,508	16,584,068
	5,781,347	8,758,260	3,940,351	18,479,958
Deduct:				
Closing inventories.....	—	1,597,830	320,781	1,918,611
	\$ 5,781,347	7,160,430	3,619,570	16,561,347
		(40,225)	6,911	(33,314)
Discounts earned.....		35,564	9,648	45,212
Operating profit transferred to the Consolidated Revenue Fund as revenue.....	\$ —	\$ (4,661)	\$ 16,559	\$ 11,898

The accompanying notes are an integral part of the financial statements.

Department of Defence Production—Appropriation Account

Statement of Expenditures For the year ended March 31, 1967

(with comparative figures for the year ended March 31, 1966)

	1967	1966
Vote 1—Departmental Administration		
Salaries.....	\$19,274,420	\$15,467,364
Living Allowances.....	266,539	259,383
Travelling and removal expenses.....	605,481	498,351
Office stationery, supplies and equipment.....	992,790	668,128
Repairs to office equipment and acquisition of spare parts.....	530,408	517,401
Telephones and telegrams.....	482,173	335,727
Professional and special services.....	349,217	322,108
Postage.....	109,094	74,961
Freight, express and cartage.....	203,140	159,549
Rental of buildings and works.....	41,418	38,256
Publication of departmental reports and other material.....	76,176	83,281
Materials and supplies.....	33,876	24,795
Acquisition or construction of equipment.....	114,299	43,858
Repairs and upkeep of equipment.....	10,890	10,463
Sundries.....	62,505	59,242
Care, maintenance and custody of standby defence plants, etc.	127,093	88,113
Grants to municipalities in lieu of taxes.....	187,370	207,526
Exhibits, advertising, films and displays.....	4,844	—
Rental of equipment.....	2,028	—
Unemployment insurance contributions and other personal benefits.....	1,661	—
	<u>23,475,422</u>	<u>18,858,506</u>
Vote 5—Establishment of Production Capacity and for Capital Assistance		
Capital Account		
Accountable advances to contractors.....	161,712	185,990
Current Account		
Defence industry modernization.....	8,000,000	2,440,000
	<u>8,161,712</u>	<u>2,625,990</u>
Vote 10—Establishment of Qualified Sources for the Production of Component Parts and Materials		
Current Account.....	—	229,729
Vote 10G—Reimbursement of the Supply Service Revolving Fund.....	13,423	—
Vote 15G—Reimbursement of the Queen's Printer's Advance Account for the Value of Stores which have become Obsolete or Unserviceable (Vote 11E for 1965-66).....	36,678	44,476
Vote 40—Canadian Arsenal Limited		
Administration and operation.....	832,757	1,494,945
Vote 45—Canadian Arsenal Limited		
Construction, improvements and equipment.....	420,340	181,317
Statutory—Gratuities to families of deceased personnel.....	—	930
Statutory—Exchequer Court Awards.....	—	2,290
	<u>\$ 32,940,332</u>	<u>\$ 23,438,183</u>

Department of Defence Production
Statement of Revenue
For the year ended March 31, 1967

(with comparative figures for the year ended March 31, 1966)

	<u>1967</u>	<u>1966</u>
Non-Tax Revenue		
Return on investments.....\$	8,946,874	\$ 5,537,596
Proceeds from sales.....	7,608,369	7,439,153
Services and service fees.....	118,377	223,168
Refunds of previous years' expenditure.....	23,164	25,735
Miscellaneous.....	185,924	77,075
	<u>\$16,882,708</u>	<u>\$13,302,727</u>

Crown Companies Associated with the Department of Defence Production

Canadian Arsenals Limited

President.....	J. R. Brisson
Vice-President.....	G. W. Hunter
Secretary.....	K. J. Price

Canadian Commercial Corporation

President.....	A. D. Belyea
General Manager.....	D. A. Myhill
Comptroller.....	N. R. MacLean
Secretary.....	T. M. Coghlan

Crown Assets Disposal Corporation

President.....	Jean Miquelon
Vice-President.....	G. W. Hunter
General Manager.....	R. P. LaPlante
Secretary and Legal Counsel.....	R. LaPrairie

Polymer Corporation Limited

President and Managing Director.....	E. R. Rowzee
Vice-President.....	E. J. Buckler
Vice-President.....	L. D. Dougan
Vice-President.....	R. E. Hatch
Vice-President.....	I. C. Rush
Vice-President.....	S. Wilk
Treasurer.....	G. Bracewell
Secretary and Chief Legal Officer.....	W. J. Dyke

Senior Departmental Personnel

Minister

The Honourable C. M. Drury, P.C., C.B.E., D.S.O., Q.C., M.P.
Executive Assistant to the Minister..... T. Porteous

Deputy Minister

G. W. Hunter

Assistant Deputy Minister, Supply.....	W. H. Huck
Assistant Deputy Minister, Operations.....	D. B. Mundy
Assistant Deputy Minister, Finance.....	R. M. Keith
Assistant Deputy Minister, Purchasing.....	J. S. Glassford
Departmental Secretary.....	W. J. Mulock
Director, Personnel Branch.....	D. E. Lavalley
Legal Adviser.....	C. S. Stevenson
Security Adviser.....	E. S. Perkin

Supply — Canadian Government Supply Service

Director-General, Operations.....	R. C. D. Laughton
Director, Regional Purchasing Branch.....	H. G. Hunt
Director, No. 1 Supply Centre Branch.....	R. A. Murray
Director, Traffic Management Branch.....	G. J. Whyte
Director, Cataloguing Branch.....	C. E. Adams
A/Director, Specifications & Standards Branch.....	J. E. Hannah
Director, Supply Management Branch.....	H. H. Floyd
Director, Quality Management Branch.....	C. L. Muir
Director, Supply Planning & Control Branch.....	J. B. P. Mahony

Purchasing — Canadian Government Purchasing Service

Director, Aerospace Branch.....	W. W. Reid
Director, Electrical & Electronics Branch.....	S. I. Comach
Director, Shipbuilding Branch.....	A. W. Allan
Director, Armament & Vehicles Branch.....	K. O. Grant
Director, General Purchasing Branch.....	D. M. Erskine
Director, Contract Administration Branch.....	J. J. Tevlin
Director, Purchase Planning & Control Branch.....	J. G. Ford
Director-General, Contracts.....	F. E. Anderson
Director, Legal Branch.....	C. S. Stevenson
Director, Purchase Research Branch.....	D. H. Hand
Director, Contracts Analysis Branch.....	(Vacant)

Operations

Director, International Programs Branch.....	A. D. Belyea
Director, Project Management Branch.....	R. M. Trites
Director, Operations Planning & Control Branch.....	G. E. Woodside

Finance

Director-General, Programs & Finance.....	J. W. Long
Acting Director, Emergency Supply Planning Group.....	C. O. Gervais
Comptroller.....	N. R. MacLean
Director, Customer Service Branch.....	R. A. Gillis

Canadian Government Printing Bureau

General Manager.....	C. B. Watt
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DEPARTMENT OF DEFENCE PRODUCTION

CH: the subject of the present study equates position in Department of Industry

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